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# FIELD MAINTENANCE PRINT SET

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| INTERFACE & TIMING | D-CS-M77Ø6-Ø-1 |
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| SERVO ANALOG | D-CS-M79Ø6-Ø-1 |
| SERVO ANALOG | B-PL-M79Ø6-Ø-Ø |


| UNIT VARIATIONS COVERED BY THIS PRINT SET |
|---|
| RKØ7-AA |
| RKØ7-AB |
| RKØ7-AC |
| RKØ7-AD |
| RKØ7-BA |
| RKØ7-BB |
| RKØ7-BC |
| RKØ7-BD |

RKØ7
**Field Maintenance Print Set**

**Digital Equipment Corporation**
PRINT SET NO.
MPØØ576

REV. B

SIZE B | CODE TC | NUMBER RKØ7-Ø-1

| REVISIONS | | | |
|---|---|---|---|
| REV | A | B | |
| CHG. NO. | RKØ7-00002 | ORIGINATED | RKØ7-MLØ13 |
| DATE | 2-78 | | 4-78 |

USED ON OPTION/MODEL: RKØ7

SHEET 1 OF 2

| | | |
|---|---|---|
| DRN | John Nagle | DATE 18JAN78 |
| CHK'D | | DATE 12JAN78 |
| PROJ. ENG. | R.E. Lawson | DATE 13Jan78 |
| FIELD SERV. | | DATE 19 JAN 78 |

digital

TITLE: RKØ7 DISK DRIVE

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| B | TC | RKØ7-Ø-1 | B |

DIST.

DRB 124

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| | |
|---|---|
| TRACK POSITION DETECTOR/PLO | D-UA-M7908-Ø-5 (SHT 1 ONLY) |
| TRACK POSITION DETECTOR/PLO | D-CS-M7908-Ø-1 |
| TRACK POSITION DETECTOR/PLO | B-PL-M7908-Ø-Ø |
| OPERATORS CONTROL PANEL | D-AH-5411823-Ø-5 (SHT 1 ONLY) |
| OPERATORS CONTROL PANEL | D-CS-5411823-Ø-1 |
| OPERATORS CONTROL PANEL | A-PL-5411823-Ø-Ø |
| SERVO PREAMP | D-AH-5411687-Ø-5 (SHT 1 ONLY) |
| SERVO PREAMP | D-CS-5411687-Ø-1 |
| SERVO PREAMP | B-PL-5411687-Ø-Ø |
| PHOTO TRANSDUCER PREAMPLIFIER | D-CS-5411881-Ø-1 |
| RKØ7 READ/WRITE | D-UA-5411060-YA (SHT 1 ONLY) |
| RKØ7 READ/WRITE | D-CS-5411060-YA |
| RKØ7 READ/WRITE | B-PL-5411060-YA |
| H767 POWER SUPPLY | D-AH-5411042-Ø-5 (SHT 1 ONLY) |
| H767 POWER SUPPLY | D-CS-5411042-Ø-1 |
| H767 POWER SUPPLY | A-PL-5411042-Ø-Ø |
| POWER SUPPLY CAP BOARD | D-CS-5411040-Ø-1 |
| RKØ6 CABLING BOARD | D-AH-M9016-Ø-5 (SHT 1 ONLY) |
| RKØ6 CABLING BOARD | D-CS-M9016-Ø-1 |
| RKØ6 TRANSITION BOARD | D-AH-5411893-Ø-5 (SHT 1 ONLY) |
| RKØ6 TRANSITION BOARD | D-CS-5411893-Ø-1 |
| AWT REVISION STATUS | A-WT-7012474-Ø |
| WIRE LIST (SINGLE PORT ) | K-WL-7012474-Ø-DBW (COMPLETE) |
| CIRCUIT SCHEMATIC RKØ6 BACK PANEL | D-CS-5411864-Ø-1 |
| CIRCUIT SCHEMATIC SPINDLE BRAKE ASSY | D-CS-7012940-Ø-1 |
| DUAL PORT LOGIC | D-UA-M7730-Ø-Ø (SHT 1 ONLY) |
| DUAL PORT LOGIC | D-CS-M7730-Ø-1 |
| DUAL PORT LOGIC | D-BD-M7730-Ø-2 |
| DUAL PORT LOGIC | D-TD-M7730-Ø-3 |
| DUAL PORT LOGIC | B-PL-M7730-Ø-Ø |
| AWT REVISION STATUS | A-WT-7012474-1 |
| WIRE LIST (DUAL PORT) | K-WL-7012474-1-DBW (COMPLETE) |

| TITLE | SHEET | SIZE | CODE | NUMBER | REV |
|---|---|---|---|---|---|
| RKØ7 DISK DRIVE | SHEET 2 OF 2 | B | TC | RKØ7-Ø-1 | B |

DRB 107

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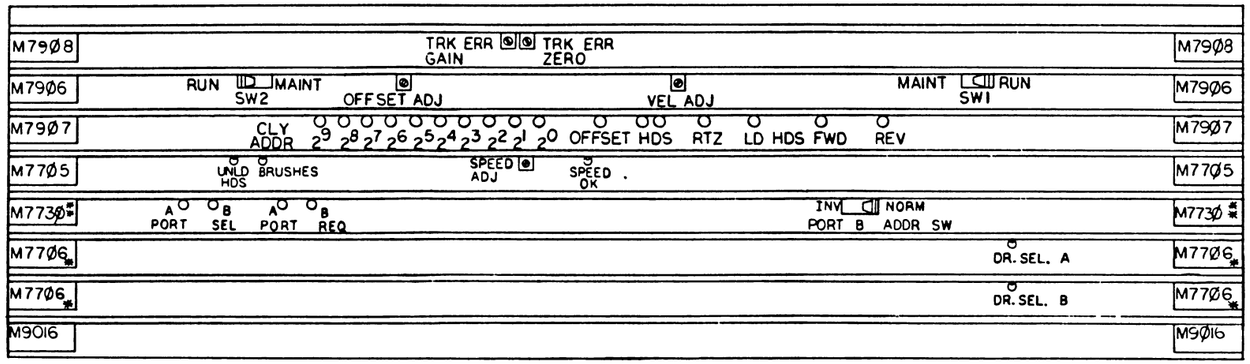


NOTES:

1. * TWO M7706 BOARDS ONLY USED WITH DUAL ACCESS OPTION, OTHERWISE ONLY ONE IS USED AS FOLLOWS:
   IN SLOT 2 WHEN B ACCESS SELECTED.
   IN SLOT 3 WHEN A ACCESS SELECTED.
2. ** DUAL PORT LOGIC BOARD USED WITH DUAL ACCESS OPTION.

| REVISIONS | REV. | CHK |
|---|---|---|
| CHANGE NO. | | |

| DESCRIPTION | DWG./PART NO. | ITEM NO. |
|---|---|---|

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

| SURFACE QUALITY IN MICROINCHES | CLASS OF ACCURACY (CHECK ONE) | NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 1.2 | OVER 1.2 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 | OVER 40.0 TO 80.0 |
|---|---|---|---|---|---|---|
| | MEDIUM ☐ | ±.004 | ±.008 | ±.012 | ±.016 | ±.024 | ±.06 |
| ✓ | PREFERRED ☐ | ±.012 | ±.016 | ±.020 | ±.06 | ±.060 | ±0.1 |

ANGLES ±0° 30'

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL —

FINISH —

| | | |
|---|---|---|
| DRN. | | |
| CHK'D | | 12 JAN 78 |
| ENG. | | 12 JAN 78 |
| PROJ. ENG | | 13 JAN 78 |
| PROD. | | 13 JAN 78 |

NEXT HIGHER ASSY. B-DD-RKØ7-Ø

SCALE —

SHEET 1 OF 1

FIRST USED ON RKO7

digital

TITLE MODULE, UTILIZATION & LED LOCATOR

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | MU | RKØ7-Ø-4 | |

DIST

DMURKØ7-Ø-4

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NOTE:
1. THE BLOCKS ON THIS DRAWING ARE IN APPROXIMATE LOCATIONS AS IN THE DRIVE IF VIEWED FROM ABOVE
2. ON FLAT CABLES PIN NUMBERS ARE THOSE ASSIGNED TO "J" END ON PC. BOARD.

SERVO HEAD
SERVO PREAMP SP1
HEAD 0
HEAD 1
HEAD 2
5411060
READ WRITE BOARD RW
LID LATCH ASSY LL
SPEED SENSOR SX 1912785
OPERATORS CONTROL PANEL 5411823 OP
CARTRIDGE PRESENT SWITCH CPSI
PHOTO TRANSDUCER PREAMP PX 5411881
PHOTO X-DUCER TX
LINEAR MOTOR M2
LINEAR MOTOR HEAD-LOAD TACH (FLX STRIP)
IN LINE CONN ILC
HOME LOCK SOLENOID HOME SWITCH HL
BATTERY B1
CHASSIS AREA CA
CARD NEST
TRACK POSITION DETECTOR M7928 TPD
BACK PLANE
CABLE BOARD M9016 CC
CARD NEST PWR CONN CN
TRANSITION BOARD X
5411893
CIRCUIT BREAKER ASSEMBLY CB 7011632
LINE CORD
MASI BRUSH HOME SWITCH
BRUSH MOTOR M4
SPINDLE MOTOR M3
BLOWER MOTOR M1
CAPACITOR TIC1
TRANSFORMER T1 50/60HZ
CAPACITOR M3C1
TRANSFORMER AREA TA
SPINDLE BRAKE POWER SUPPLY SB
CAP. BOARD A2
5411040
ELECTRONICS BOARD A1
5411042
P.S. POWER SUPPLY
1 40 COND
2 20 COND
3 TWIN AX
4 20 COND
4A 3 COND
4B 4 COND
4C 8 COND
5 20 COND
5A 3 COND
5B 2 COND
5C 4 COND
5D 4 COND
6 20 COND
7 20 COND
8 12 COND
9 4 COND
9A 2 COND
9B 2 COND
9C 1 WIRE
10 2 COND
10A 2 COND
10B 4 COND
10C
10G
11 4 COND
11M
12 12 COND
19 19 COND
2 COND
4 COND
2 COND.

| REVISIONS | | |
|---|---|---|
| ECO | CHANGE NO. | REV. |
| | RKØ7-M-0064 | A |

M. CASTELLANOS 2-8-77

FOR SER. # 50,000 TO 53,379

| | | |
|---|---|---|
| DRN | | 8 JUL 77 |
| CHK'D | | 2 FEB 78 |
| ENG'R | | 13 FEB 78 |
| PROJ ENG | | 8 JUN 78 |
| PROD | | 8 JUN 78 |
| NEXT HIGHER ASSY. | | |
| 3-DD-RKØ7-Ø | | |
| SCALE | | |
| SHEET 1 OF 14 | | |

FIRST USED ON RKØ7

digital

TITLE
RKØ7 SYSTEMS CABLING

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | IC | RKØ7-Ø-3 | A |
| DIST | | | |

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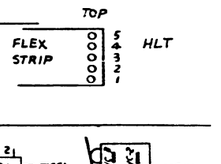
| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN-PIN | CABLE NUMBER | R/W-BOARD (RW) CABLE CONN-PIN | REMARKS |
|---|---|---|---|---|---|
| GND-C | | J1/P1-A | | P1/J1-UU | |
| GND-C | | J1/P1-B | | P1/J1-VV | |
| CYL-ADD 7 H | DN2 | J1/P1-C | | P1/J1-TT | |
| CYL-ADD 6 H | DP2 | J1/P1-D | | P1/J1-SS | |
| | | J1/P1-E | | P1/J1-RR | |
| CYL-ADD 8 H | DR1 | J1/P1-F | | P1/J1-PP | |
| +5B | DA2 | J1/P1-H | | P1/J1-NN | |
| +5B | DA2 | J1/P1-J | | P1/J1-MM | |
| +25B | DE2 | J1/P1-K | | P1/J1-LL | |
| +25B | DE2 | J1/P1-L | | P1/J1-KK | |
| GND-C | | J1/P1-M | | P1/J1-JJ | |
| | | J1/P1-N | | P1/J1-HH | |
| GND-C | | J1/P1-P | | P1/J1-FF | |
| WR DATA L | DS2 | J1/P1-R | | P1/J1-EE | |
| GND-C | | J1/P1-S | | P1/J1-DD | |
| WR GATE L | DU2 | J1/P1-T | | P1/J1-CC | |
| ALIGN SIGN+ | DM1 | J1/P1-U | (1) | P1/J1-BB | |
| ALIGN SIGN- | DN1 | J1/P1-V | | P1/J1-AA | |
| SET CURR FAULT | DM2 | J1/P1-W | 40 COND R/W (GREY) | P1/J1-Z | FOR R/W BOARD CONN LAYOUT SEE SHEET 5 FIG 1 |
| SET HD FAULT L | DV1 | J1/P1-X | | P1/J1-Y | |
| SET MULT HD L | DL2 | J1/P1-Y | | P1/J1-X | |
| | | J1/P1-Z | | P1/J1-W | |
| GND-B | | J1/P1-AA | | P1/J1-V | |
| -15V | DB2 | J1/P1-BB | | P1/J1-U | |
| SET NO TRANS L | DK2 | J1/P1-CC | | P1/J1-T | |
| SET NO TRANS L | DK2 | J1/P1-DD | | P1/J1-S | |
| UNS TST | DJ2 | J1/P1-EE | | P1/J1-R | |
| | | J1/P1-FF | | P1/J1-P | FOR CABLE CARD CONN LAYOUT SEE SHEET 5 FIG 5 |
| GND-B | | J1/P1-HH | | P1/J1-N | |
| +15V | DD2 | J1/P1-JJ | | P1/J1-M | |
| +25A | DE2 | J1/P1-KK | | P1/J1-L | |
| +25A | DE2 | J1/P1-LL | | P1/J1-K | |
| +5A | DA2 | J1/P1-MM | | P1/J1-J | |
| +5A | DA2 | J1/P1-NN | | P1/J1-H | |
| | | J1/P1-PP | | P1/J1-F | |
| HD0 L | DE1 | J1/P1-RR | | P1/J1-E | |
| HD1 L | DH2 | J1/P1-SS | | P1/J1-D | |
| HD2 L | DF2 | J1/P1-TT | | P1/J1-C | |
| GND A | | J1/P1-UU | | P1/J1-B | |
| GND A | | J1/P1-VV | | P1/J1-A | |

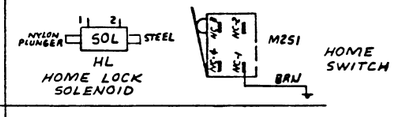
| SIGNAL NAME | SERVO PREAMP (SPA) PIN | WIRE COLOR | CABLE NUMBER | M7708 BACK PLANE PIN T:D | | REMARKS |
|---|---|---|---|---|---|---|
| +15V | SP1-J1/P1-2 | ORN | (3) | SLOT 8 | CD2 | |
| GND | SP1-J1/P1-3 | BLK | | SLOT 8 | CC2 | |
| SVO PRE B | SP1-J1/P1-6 | BLU | TWIN AX SERVO PREAMP | SLOT 8 | DP2 | |
| SVO PRE COM | SP1-J1/P1-7 | WHT | | SLOT 8 | DMT | |
| SVO PRE A | SP1-J1/P1-8 | CLEAR | | SLOT 8 | DJ2 | DRAIN |

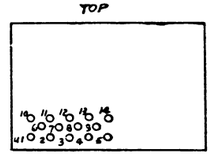
PIN-1 … PIN-9 — THIS SIDE UP

SERVO PREAMP P1

| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN-PIN | CABLE NUMBER | TRANSITION BOARD (X) CONN | TRANSITION BOARD (X) CONN | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| HD LD #2 (BUCKING) | CR2 | J3/P3-A | | P10/J10-X | J8/P8-1 | YEL | (4-A) | HLT-5 | |
| HD LD COMM'N | CS2 | J3/P3-B | | P10/J10-W | J8/P8-3 | GRY | | HLT-4 | |
| HD LD #1 (TACH) | CP2 | J3/P3-C | | P10/J10-V | J8/P8-2 | GRN | 3 COND HEAD LOAD TACH | HLT-3 | |
| GND | | J3/P3-D | (4) | P10/J10-U | J8/P8-4 | — | | — | |
| HOME L | CN2 | J3/P3-E | | P10/J10-T | J7/P7-1 | ORN | | HLM2S1-4 | |
| +25V | CE2 | J3/P3-F | 20 COND (GREY) | P10/J10-S | J7/P7-3 | VIO | (4-B) | HLSOL-1 | |
| HOME LOCK RELEASE L | CM2 | J3/P3-H | | P10/J10-R | J7/P7-2 | YEL | 4 COND HOME SW HOME LOCK | HLSOL-2 | |
| GND | | J3/P3-J | | P10/J10-P | J7/P7-4 | BLK | | HLM2S1-3 | |
| LIM PA | CL2 | J3/P3-K | POSITIONER AREA | P10/J10-N | J6/P6-8 | VIO | (4-C) | PXU12 | |
| GND | | J3/P3-L | | P10/J10-M | J6/P6-1 | — | | | |
| +COS PA | CK2 | J3/P3-M | | P10/J10-L | J6/P6-10 | GRN | | PXU9 | |
| GND | | J3/P3-N | SEE | P10/J10-K | J6/P6-3 | — | | | |
| -SIN PA | CJ2 | J3/P3-P | PAGE 5 FIGS | P10/J10-J | J6/P6-9 | YEL | 8 COND PHOTO TRANSDUCER | PXU14 | |
| GND | | J3/P3-R | FOR CABLE CARD CONN LAYOUT. | P10/J10-H | | — | | | |
| | | J3/P3-S | | P10/J10-F | | — | | | |
| +15V | CD2 | J3/P3-T | FIG 4 FOR TRANSITION BOARD CONN LAYOUT. | P10/J10-E | J6/P6-6 | ORN | | PXU4 | |
| LED CATHODE | CH1 | J3/P3-U | | P10/J10-D | J6/P6-7 | WHT | | PXU6 | |
| -15V | CB2 | J3/P3-V | | P10/J10-C | J6/P6-4 | BLU | | PXU8 | |
| GLASS XDR COM (GND) | CF1 | J3/P3-W | | P10/J10-B | J6/P6-5 | BLK | | PXU1 | |
| +5V | CA2 | J3/P3-X | | P10/J10-A | J6/P6-2 | RED | | PXU2 | |




| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN-PIN | CABLE NUMBER | R/W-BOARD (RW) CABLE CONN-PIN | REMARKS |
|---|---|---|---|---|---|
| +15 | DD2 | J2/P2-A | | P2/J2-X | |
| +15 | DD2 | J2/P2-B | (2) | P2/J2-W | |
| GND D | | J2/P2-C | | P2/J2-V | FOR R/W BOARD CONN LAYOUT SEE SHEET 5 FIG 1 |
| GND D | | J2/P2-D | 20 COND R/W (GREY) | P2/J2-U | |
| -5 | DR2 | J2/P2-E | | P2/J2-T | |
| -5 | DR2 | J2/P2-F | | P2/J2-S | |
| GND | | J2/P2-H | | P2/J2-R | |
| GND | | J2/P2-J | | P2/J2-P | |
| +5C | DA2 | J2/P2-K | | P2/J2-N | |
| +5C | DA2 | J2/P2-L | | P2/J2-M | |
| GND-D | | J2/P2-M | | P2/J2-L | |
| GND-D | | J2/P2-N | | P2/J2-K | |
| WR-GATE-L | CV1 | J2/P2-P | | P2/J2-J | |
| GND-D | | J2/P2-R | | P2-J2-H | FOR CABLE CARD CONN LAYOUT SEE SHEET 5 FIG 5 |
| RD DATA 2 L | CU2 | J2/P2-S | | P2/J2-F | |
| GND D | | J2/P2-T | | P2/J2-E | |
| RD DATA 1 L | CU1 | J2/P2-U | | P2/J2-D | |
| GND D | | J2/P2-V | | P2/J2-C | |
| GND D | | J2/P2-W | | P2/J2-B | |
| GND D | | J2/P2-X | | P2/J2-A | |

| SIGNAL NAME | PHOTO TRANSDUCER WIRING PREAMP (PX) | WIRE COLOR | CABLE NUMBER | TRANSDUCER ASSEMBLY (TX) | REMARKS |
|---|---|---|---|---|---|
| SIN X (E1) | PX-U5 | YEL | (4-C) | TX-E1 | |
| -COS-X (E2) | PX-U13 | GRN | | TX-E2 | |
| LIM-X (E3) | PX-U3 | VIO | 6 WIRES (PART OF PHOTO TRANS ASSY) | TX-E3 | |
| PHOTO DIODE CATH (+5V) | PX-U11 | BRN | | TX- +5 | |
| LED ANODE (+5V) | PX-U7 | RED | | TX-AN | |
| LED CATHODE | PX-U16 | WHT | | TX-CA | |

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

FOR SER. # 50,000 TO 53,379

| TITLE | RKØ7 SYSTEMS CABLING | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|---|
| | | D | IC | RKØ7-Ø-3 | A |
| SCALE | SHEET 2 OF 14 | DIST | | | |

DEC FORM NO DRD 139

DIC RKØ7-Ø-3 REV A

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| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CONN-PIN | CABLE NUMBER | TRANSITION BOARD (X) CONN | TRANSITION BOARD (X) CONN | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| BRUSH HOME SW L | BN2 | J5/P5-A | | P9/J9-X | J5/P5-1 | BLU | (5-A) | M451-NC | |
| BRUSH HOME SW H | BP2 | J5/P5-B | | P9/J9-W | J5/P5-3 | YEL | | M451-NO | |
| | BM2 | J5/P5-C | | P9/J9-V | J5/P5-2 | | 3 COND | | |
| GND | | J5/P5-D | (5) | P9/J9-U | J5/P5-4 | BLK | BRUSH HOME SW | M451-COM | |
| DR IN PLACE SOL L | BL2 | J5/P5-E | | P9/J9-T | J4/P4-2 | | | | |
| +25V | BE2 | J5/P5-F | 20 | P9/J9-S | J4/P4-3 | NOT | USED | | |
| DR IN PLACE L | BK2 | J5/P5-H | COND | P9/J9-R | J4/P4-1 | | | | |
| GND | | J5/P5-J | (GREY) | P9/J9-P | J4/P4-4 | | | | |
| CART PRES L | BJ2 | J5/P5-K | | P9/J9-N | J3/P3-3 | BLU | (5-B) | CPS1-NO | |
| GND | | J5/P5-L | CHASSIS | P9/J9-M | J3/P3-4 | | | | |
| | BH2 | J5/P5-M | AREA | P9/J9-L | J3/P3-1 | | 2 COND | | |
| GND | | J5/P5-N | SEE PAGE 5 FIG 5 | P9/J9-K | J3/P3-2 | BLK | CART. PRESENT | CPS1-COM | |
| LID LOCKED L | BF2 | J5/P5-P | FOR CABLE CARD CONN LAYOUT | P9/J9-J | J2/P2-3 | BLU | (5-C) | LLS1-NO | |
| GND | | J5/P5-R | | P9/J9-H | J2/P2-2 | BLK | | LLS1-COM | |
| +25V | BE2 | J5/P5-S | FIG 4 | P9/J9-F | J2/P2-4 | VIO | 4 COND | LLSOL-1 | |
| LID LOCKED SOL-L | BE1 | J5/P5-T | FOR TRANSITION | P9/J9-E | J2/P2-1 | YEL | LID LOCK | LLSOL-2 | |
| SPINDLE SPEED | BC1 | J5/P5-U | | P9/J9-D | J1/P1-4 | BRN | (5-D) | SX-2 | |
| GND | | J5/P5-V | BOARD CONN LAYOUT | P9/J9-C | J1/P1-2 | YEL | | SX-1 | |
| LED CATHODE | BB1 | J5/P5-W | | P9/J9-B | J1/P1-3 | BLK | 4 COND | SX-3 | |
| LED ANODE (+5) | BA1 | J5/P5-X | | P9/J9-A | J1/P1-1 | RED | SPEED TRANS. | SX-4 | |

BRUSH HOME SWITCH — COM, NC, NO — M451

CARTRIDGE PRESENT SWITCH — COM, NO, NC — CPS1

1 2 SOL — LL LIDLOCK SOLENOID — COM, NO — LIDLOCK SWITCH — LLS1

1 2 3 4 — SX — SPEED SWITCH

| SIGNAL NAME | CABLE CARD (CN) SLOT 1 BACK-PLANE PIN | CABLE CONN PIN | CABLE NUMBER | POWER SUPPLY ELECTRONICS BOARD (PSA1) CONN PIN | REMARKS |
|---|---|---|---|---|---|
| EMITTER TEST PT | BJ1 | J4/P4-A | | A1-P2/J2-X | |
| SPARE | BV1 | J4/P4-B | | A1-P2/J2-W | |
| AC LOW L | CE1 | J4/P4-C | | A1-P2/J2-V | |
| GND | | J4/P4-D | (7) | A1-P2/J2-U | |
| SPINDLE ON L | CD1 | J4/P4-E | 20 COND | A1-P2/J2-T | |
| GND | | J4/P4-F | POWER | A1-P2/J2-S | |
| EN BRUSHES L | CC1 | J4/P4-H | SUPPLY | A1-P2/J2-R | |
| GND | | J4/P4-J | SIGNAL | A1-P2/J2-P | |
| SPINDLE BRAKE L | CB1 | J4/P4-K | | A1-P2/J2-N | |
| GND | | J4/P4-L | (GREY) | A1-P2/J2-M | |
| REMOTE SENSE C ▲ | CA1 | J4/P4-M | | A1-P2/J2-L | |
| GND | | J4/P4-N | | A1-P2/J2-K | |
| CURRENT COMMAND | BV2 | J4/P4-P | | A1-P2/J2-J | |
| GND | | J4/P4-R | | A1-P2/J2-H | |
| REMOTE SENSE A GND (UNUSED) | BU2 | J4/P4-S | | A1-P2/J2-F | |
| REMOTE SENSE B GND (UNUSED) ▲ | BS2 | J4/P4-T | | A1-P2/J2-E | |
| DC LOW L | BR2 | J4/P4-U | | A1-P2/J2-D | |
| GND | | J4/P4-V | | A1-P2/J2-C | |
| | | J4/P4-W | | A1-P2/J2-B | |
| | | J4/P4-X | | A1-P2/J2-A | |

▲ REMOTE SENSE C IS ANALOG GND
REMOTE SENSE B IS GND

| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | CARD NEST POWER (CN) | REMARKS |
|---|---|---|---|---|---|
| +5V | A1J1/P1-1 | RED | | CNP7/J7-1 | |
| +5V | A1J1/P1-2 | RED | | CNP7/J7-2 | |
| +5V | A1J1/P1-3 | RED | (8) | CNP7/J7-3 | |
| +5V | A1J1/P1-4 | RED | | CNP7/J7-4 | |
| +25V | A1J1/P1-5 | VIO | 12 COND | CNP7/J7-5 | |
| +15V | A1J1/P1-6 | ORN | DC | CNP7/J7-6 | |
| GND | A1J1/P1-7 | BLK | POWER | CNP7/J7-7 | |
| GND | A1J1/P1-8 | BLK | | CNP7/J7-8 | |
| GND | A1J1/P1-9 | BLK | | CNP7/J7-9 | |
| GND | A1J1/P1-10 | BLK | | CNP7/J7-10 | |
| -15V | A1J1/P1-11 | BLU | | CNP7/J7-11 | |
| -5V | A1J1/P1-12 | GRN | | CNP7/J7-12 | |

B A — X W

NOTES: PIN A IS FRONT PIN, CLOSEST TO BOARD

A B

PIN REVERSAL CABLE CARD BOARD(M9016) TO PWR SUPPLY BD H767(5911092)

CN7 THIS SIDE UP — PIN 1 @ CARD NEST — PIN 13

A1P1 THIS SIDE UP — PIN 13 @ POWER SUPPLY ELECTRONICS BOARD — PIN 1

| SIGNAL NAME | CABLE CARD (CN) SLOT-1 BACK-PLANE PIN | CABLE CONN-PIN | CABLE NUMBER | OPERATOR CONTROL PANEL (CP) CONN-PIN | REMARKS |
|---|---|---|---|---|---|
| U0 L | AR2 | J6/P6-A | | P1/J1-X | |
| U1 L | AS2 | J6/P6-B | | P1/J1-W | |
| U2 L | AP2 | J6/P6-C | | P1/J1-V | |
| RUN(1) H | AU2 | J6/P6-D | | | |
| WRL(1) L | AN2 | J6/P6-E | (6) | P1/J1-T | |
| STOPPED LITE H | AV2 | J6/P6-F | | P1/J1-S | |
| QUAL L | AM2 | J6/P6-H | 20 COND | P1/J1-R | |
| GND | | J6/P6-J | OPER | P1/J1-P | |
| RUN SW L | AL2 | J6/P6-K | CONTROL | | |
| GND | | J6/P6-L | PANEL | P1/J1-M | |
| +5 | AA2 | J6/P6-M | | P1/J1-L | |
| +5 | AA2 | J6/P6-N | (GREY) | P1/J1-K | |
| READY (0) H | AK2 | J6/P6-P | | P1/J1-J | |
| FAULT L | AB1 | J6/P6-R | | P1/J1-H | |
| SW EN B L | AJ2 | J6/P6-S | | P1/J1-F | |
| SW EN A H | AC1 | J6/P6-T | | P1/J1-E | |
| WR PROT SW L | AH2 | J6/P6-U | | P1/J1-D | |
| UNUSED | | J6/P6-V | | P1/J1-C | |
| DR SEL A | AF2 | J6/P6-W | | P1/J1-B | |
| DR SEL B | AE2 | J6/P6-X | | P1/J1-A | |

SEE PAGE 5 FIG 5 FOR CABLE CARD CONN PIN LAYOUT. FIG 3 FOR POWER SUPPLY ELECT BOARD(A1) CONN LAYOUT

B A — X W

OPERATOR CONTROL PANEL CONN-PIN LAYOUT

NOTE: PIN A IS FRONT PIN, CLOSEST TO BOARD

A B

PIN REVERSAL CABLE CARD BD (M9018) TO OPERATOR CONTROL PNL BD (5911843)

| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | CONN.* CHASSIS AREA (CA) TRANSFORMER AREA (TA) | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| LIN MTR-RET | A1J3/P3-1 | RED | | CAM2J1/P1-3 | BRN | (9A) | LM-2 | |
| LINEAR MOTOR PWR | A1J3/P3-2 | RED | (9) | CAM2J1/P1-1 | WHT | 2 WIRE | LM-1 | |
| BATTERY + | A1J3/P3-3 | BRN | | CAB1J1/P1-1 | BRN | (9-B) | B1-POS | |
| BATTERY - | A1J3/P3-4 | BLK | POWER SUPPLY | CAB1J1/P1-3 | BLK | ASSY | B1-NEG | |
| 13V RMS | A1J3/P3-6 | YEL | 9 COND | TAT1J2/P2-1 | YEL | (9-7) | TRANSFORMER | |
| 13V RMS | A1J3/P3-7 | YEL | (3 BRANCHES) | TAT1J2/P2-2 | YEL | ASSY | TRANSFORMER | |
| GND | A1J3/P3-8 | BLK | SEE NOTE 1. | TAT1J2/P2-3 | YEL/BLK | | TRANSFORMER | |
| HOME SWITCH NC | HLM251-NC-2 | GRN** | (9-C) | CAB1J1/P1-2 | BRN | JUMPER | CAB1P1-1 | TO (9B) B1-POS |

FLEX STRIP — LM-2, LM-1 — RIB DENOTES PIN 1 — PIN SIDE

CAM2 P1
CAB1 P1
TAT1 P2

A1P3 THIS SIDE UP — PIN 1 — PIN 8 — @ POWER SUPPLY ELECTRONICS BOARD

NOTE 1. SEE PAGE 5 FIGURE 3 FOR POWER SUPPLY ELECTRONIC BOARD A1 CONN LAYOUT.
* SEE PAGE 5 FIGURE 6 FOR CA AREA LAYOUT, FIGURE 7 FOR TA AREA LAYOUT.

** INLINE CONNECTOR (ILC) IN RUN TO FACILITATE REMOVAL OF BASE PLATE/HOMELOCK ASSY

FOR SER.# 50,000 TO 53,379

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE — | SHEET 3 OF 14 | DIST | | |

DEC FORM NO. 0113 137

NUMBER RKØ7-Ø-3 REV A

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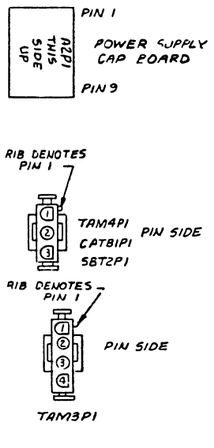
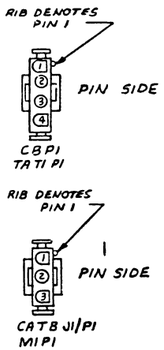
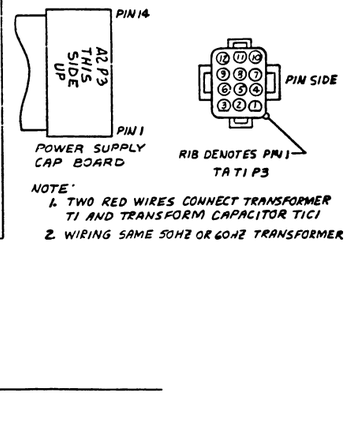
| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | CONN * TA SB CA | WIRE COLOR | CABLE NUMBER | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| BRUSH MOTOR(HOT)[110V] | A2P1/J1-1 | RED | | TAM4J1/P1-1 | BLK | (10-A) | BRUSH MOTOR | |
| BRUSH MOTOR(LOW)[NEUT] | A2P1/J1-2 | WHT | | TAM4J1/P1-3 | BLK | | | |
| SPINDLE BRAKE PS.[110V] | A2P1/J1-3 | RED | | SBP1/J1-1 | — | — | SPINDLE BRAKE POWER SUPPLY | |
| SPINDLE BRAKE PS[NEUT] | A2P1/J1-4 | WHT | (10) | SBP1/J1-2 | | | | |
| SPINDLE MOTOR(LOW) | A2P1/J1-5 | WHT | 9 COND 4 (BRANCHES) | TAM3J1/P1-2 | RED | (10-B) | SPINDLE MOTOR | |
| SPINDLE MOTOR(HOT) | A2P1/J1-6 | RED | | TAM3J1/P1-1 | BLU | | | |
| 110VAC (HOT) | A2P1/J1-7 | RED | MOTOR AND AC | CATB1P1-1 | — | — | AC-IN SEE ITEM (11) FOR SOURCE | |
| 110VAC (NEUT) | A2P1/J1-8 | WHT | | CATB1P1-3 | | | | |
| 12V BRAKE VOLT | A2P1/J1-9 | BLU | SEE PAGES FIG 2 FOR PWR SUPPLY CAP BOARD (A2) CONN LAYOUT | SBP1/J1-3 | — | — | SPINDLE BRAKE POWER SUPPLY | |
| SPINDLE MOTOR CAP-N | M3C-2 | WHT | (10-C) | TAM3J1/2 | WHT | (10-B) | SPINDLE MOTOR CAP | |
| SPINDLE MOTOR CAP-M | M3C-1 | BLK | | TAM3J1/3 | BLK | | | |
| GND (CHASSIS) | CHASSIS | GRN/YEL | (10G) | TAM3J1/P1-4 | GRN/YEL | | SPINDLE MOTOR CHASSIS | |




| SIGNAL NAME | CIRCUIT BREAKER (CB) | WIRE COLOR | CABLE NUMBER | CONN * TRANSFORMER-TA CHASSIS ASSY-CA BLOWER MOTOR-M1 | WIRE COLOR | CABLE NUMBER | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 110VAC (HOT) | CBJ1/P1-1 | RED | (11) 4 COND (3 BRANCHES) A.C. | TATIJ1/P1-1 | BRN | (11T) | TRANSFORMER PRIMARY | |
| 110VAC (NEUT) | CBJ1/P1-2 | WHT | | TATIJ1/P1-2 | BRN/WHT | | | |
| 110VAC (HOT) | CBJ1/P1-3 | RED | | TATIJ1/P1-3 | BLK | | | |
| 110VAC (NEUT) | CBJ1/P1-4 | WHT | | TATIJ1/P1-4 | BLK/WHT | | | |
| 110VAC (HOT) | CBJ1/P1-1 | RED | | CATB1J1-1 | SEE ITEM (10) FOR CONTINUATION | | | |
| 110VAC (NEUT) | CBJ1/P1-2 | WHT | | CATB1J1-3 | | | | |
| 110VAC (HOT) | CBJ1/P1-3 | RED | | M1J1/P1-1 | RED | (11M) | BLOWER MOTOR | |
| 111VAC (NEUT) | CBJ1/P1-4 | WHT | | M1J1/P1-3 | WHT | | | |

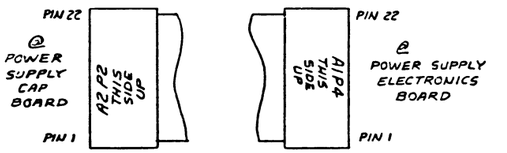



| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | TRANSFORMER AREA (TA) * | WIRE COLOR | CABLE NUMBER | REMARKS | |
|---|---|---|---|---|---|---|---|---|
| +10V COMMON | A2J3/P3-1 | BLK | (12) 12 COND | TAT1J3/P3-1 | BLU/WHT | (12-T) | SEE PAGE 5 FIG 3 FOR POWER SUPPLY ELEC BOARD (A2) CONN LAYOUT | TRANSFORMER |
| +10V COMMON | A2J3/P3-2 | BLK | | TAT1J3/P3-2 | BLU/WHT | | | |
| +25V COMMON | A2J3/P3-3 | BLU | | TAT1J3/P3-3 | ORN/WHT | | | |
| +25V COMMON | A2J3/P3-4 | BLU | | TAT1J3/P3-4 | GRN/WHT | | | |
| 37V RMS | A2J3/P3-7 | GRN | | TAT1J3/P3-5 | GRN/BLK | | | |
| 37V RMS | A2J3/P3-8 | GRN | | TAT1J3/P3-6 | GRN/BLK | | | |
| 37V RMS | A2J3/P3-9 | BLK | | TAT1J3/P3-7 | GRN | | | |
| 37V RMS | A2J3/P3-10 | BLK | | TAT1J3/P3-8 | GRN | | | |
| 13 V RMS | A2J3/P3-11 | WHT | | TAT1J3/P3-9 | BLU/BLK | | | |
| 13 V RMS | A2J3/P3-12 | WHT | | TAT1J3/P3-10 | BLU/BLK | | | |
| 13 V RMS | A2J3/P3-13 | GRN | | TAT1J3/P3-11 | BLU | | | |
| 13 V RMS | A2J3/P3-14 | GRN | | TAT1J3/P3-12 | BLU | | | |




NOTE:
1. TWO RED WIRES CONNECT TRANSFORMER T1 AND TRANSFORM CAPACITOR TIC1
2. WIRING SAME 50HZ OR 60HZ TRANSFORMER

| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | POWER SUPPLY (PS) | REMARKS |
|---|---|---|---|---|---|
| +10V | A1P4/J4-1 | YEL | (13) 19 COND | A2J2/P2-1 | SEE PAGE 5 FIG. 2 FOR PS CAP BOARD (A2) CONN LAYOUT FIG 3 FOR P.S ELECT. BOARD (A1) CONN LAYOUT |
| +10V | A1P4/J4-2 | YEL | | A2J2/P2-2 | |
| +10V | A1P4/J4-3 | YEL | | A2J2/P2-3 | |
| +10V | A1P4/J4-4 | YEL | | A2J2/P2-4 | |
| BATTERY- | A1P4/J4-6 | BRN | | A2J2/P2-6 | |
| LINEAR MOTOR PWR | A1P4/J4-7 | VIO | | A2J2/P2-7 | |
| LINEAR MOTOR DRIVER | A1P4/J4-8 | GRY | | A2J2/P2-8 | |
| -10V | A1P4/J4-9 | BRN | | A2J2/P2-9 | |
| -25V | A1P4/J4-10 | GRY | | A2J2/P2-10 | |
| -25V | A1P4/J4-11 | GRY | | A2J2/P2-11 | |
| +25V | A1P4/J4-12 | VIO | | A2J2/P2-12 | |
| +25V | A1P4/J4-13 | VIO | | A2J2/P2-13 | |
| GND | A1P4/J4-16 | BLK | | A2J2/P2-16 | |
| GND | A1P4/J4-17 | BLK | | A2J2/P2-17 | |
| GND | A1P4/J4-18 | BLK | | A2J2/P2-18 | |
| GND | A1P4/J4-19 | BLK | | A2J2/P2-19 | |
| SPINDLE BRAKE L | A1P4/J4-20 | RED | | A2J2/P2-20 | |
| EN BRUSHES L | A1P4/J4-21 | RED | | A2J2/P2-21 | |
| SPINDLE ON L | A1P4/J4-22 | RED | | A2J2/P2-22 | |




NOTE:
PINS 5, 14, AND 15 UNUSED.

* SEE PAGE 5 FIG 6 FOR CA CONN LAYOUT
FIG 7 FOR TA CONN LAYOUT

FOR SER.# 50,000 TO 53,379

REVISIONS

| CHK | CHANGE NO. | REV. |
|---|---|---|
| | | |

| | | | |
|---|---|---|---|
| TITLE RKØ7 SYSTEMS CABLING | SIZE D | CODE IC | NUMBER RKØ7 -Ø-3 |
| SCALE —/— | SHEET 4 OF 14 | DIST | REV. A |

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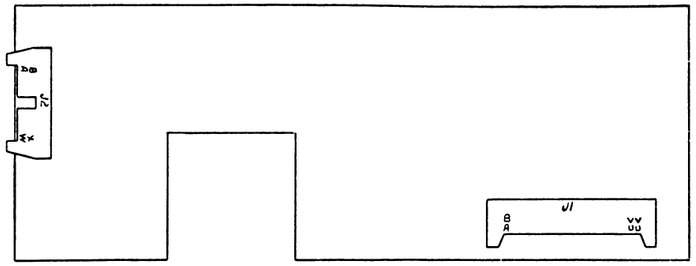
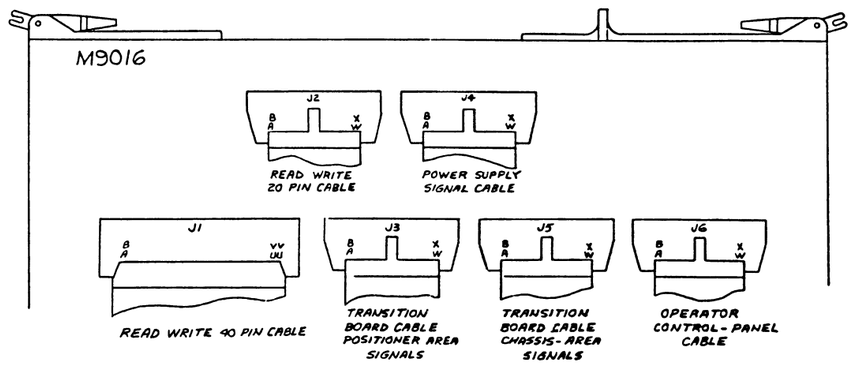



R/W BOARD CONNECTOR LABELING

FIG. 1

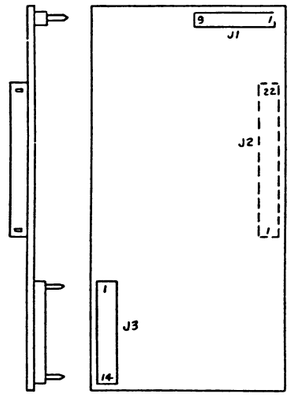
NOTE:
1. PIN A FRONT PIN, CLOSEST TO BOARD




NOTE:
PIN A IS FRONT PIN, CLOSESET TO BOARD

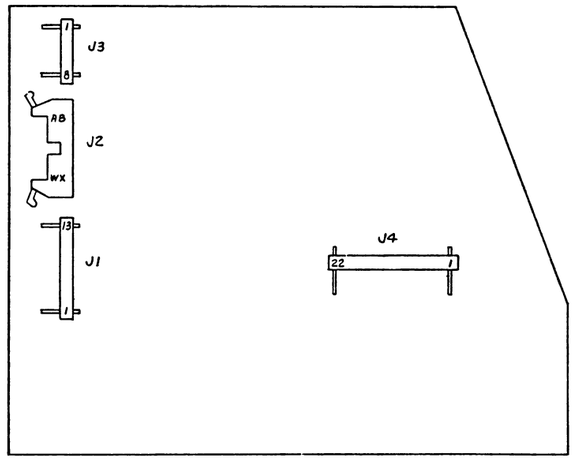
CABLE CARD

FIG. 5



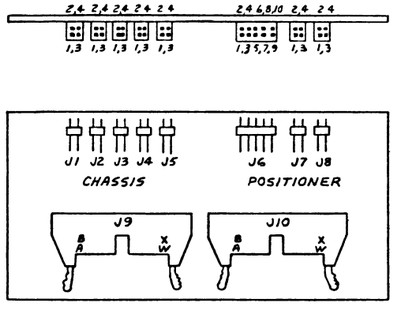

POWER SUPPLY CAP BOARD A2

FIG. 2




H767 POWER SUPPLY BOARD A1

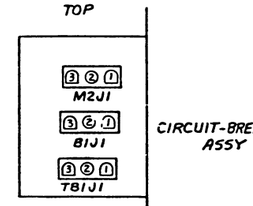
FIG. 3




NOTE:
PIN A IS FRONT PIN CLOSEST TO BOARD

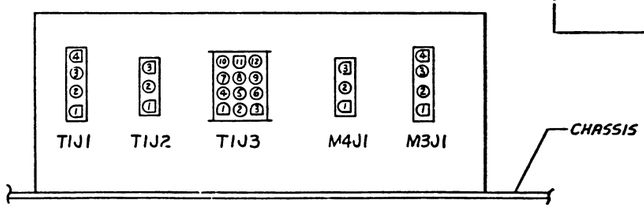
TRANSITION BOARD

FIG. 4




CHASSIS AREA CONN CA
(PIN VIEW)

FIG. 6




TRANSFORMER AREA CONNECTORS TA
PIN VIEW

FIG. 7

FOR SER # 50,000 TO 53,379

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE — | SHEET 5 OF 14 | | DIST | |

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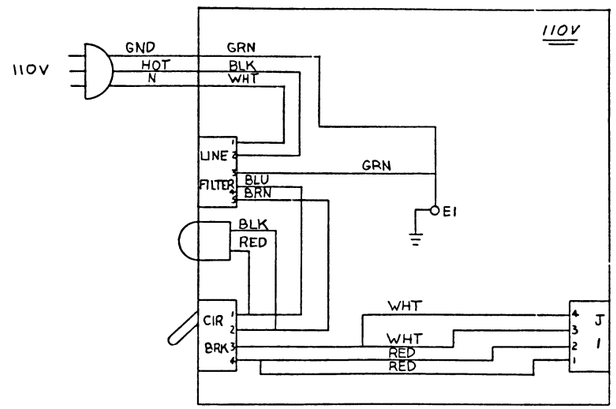


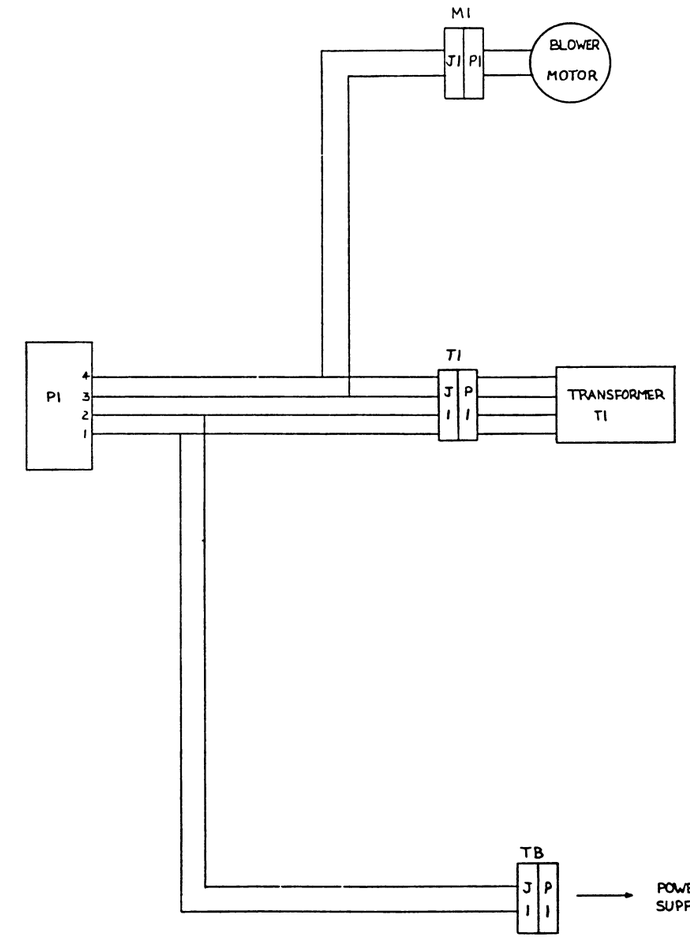


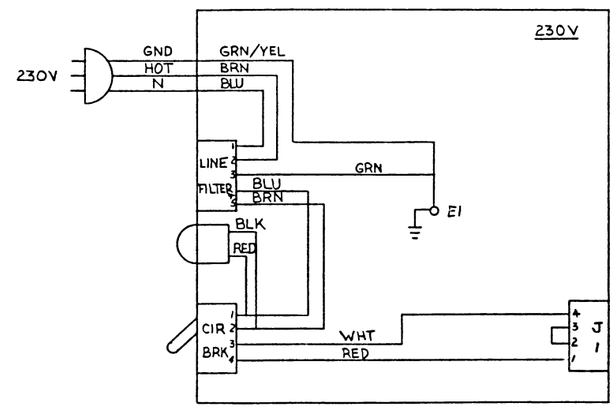


CIRCUIT BREAKER
ASSY

FOR 50,000 TO 53,379

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE — | SHEET 6 OF 14 | DIST | | |

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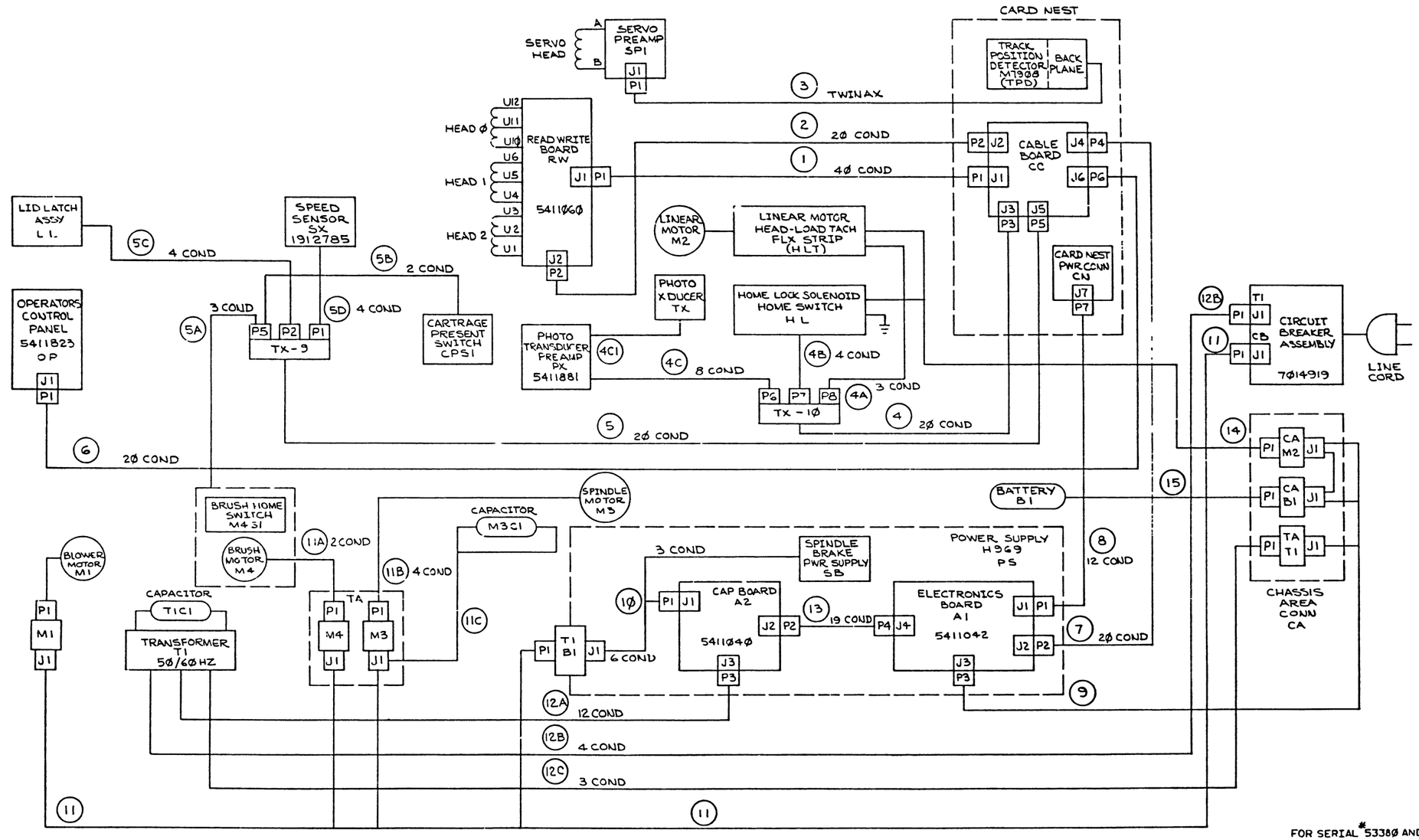


FOR SERIAL # 53380 AND HIGHER

| REVISIONS | | |
|---|---|---|
| REV. | CHANGE NO | CHK |

| | | |
|---|---|---|
| DRN. B. Shepard | 12-1-78 | FIRST USED ON |
| CHK'D M Cuthbert | 12-13-78 | digital |
| ENG. M Cuthbert | 12-13-78 | TITLE RKØ7 SYSTEMS CABLING |
| PROJ ENG. M Cuthbert | 12-13-78 | |
| PROD [illegible] | 12-13-78 | |
| NEXT HIGHER ASSY. | | |
| SCALE NONE | | SIZE D · CODE IC · NUMBER RKØ7-Ø-3 · REV. A |
| SHEET 7 OF 14 | | DIST |

RKØ7-Ø-3 REVISED D IC 12278 A NEW

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| SIGNAL NAME | CABLE CARD (CC) SLOT-: BACK-PLANE PIN | CABLE CARD (CC) SLOT-: CABLE CONN PIN | CABLE NUMBER | R/W BOARD (RW) CABLE CONN PIN | REMARKS |
|---|---|---|---|---|---|
| GND C | | J1/P1-A | | P1/J1-UU | |
| GND C | | J1/P1-B | | P1/J1-VV | |
| CYL ADD 7 H | DN2 | J1/P1-C | | P1/J1-TT | |
| CYL ADD 6 H | DP2 | J1/P1-D | | P1/J1-SS | |
| | | J1/P1-E | | P1/J1-RR | |
| CYL ADD 8 H | DR1 | J1/P1-F | | P1/J1-PP | |
| +5B | DA2 | J1/P1-H | | P1/J1-NN | |
| +5B | DA2 | J1/P1-J | | P1/J1-MM | |
| +25B | DE2 | J1/P1-K | | P1/J1-LL | |
| +25B | DE2 | J1/P1-L | | P1/J1-KK | |
| GND C | | J1/P1-M | | P1/J1-JJ | |
| | | J1/P1-N | | P1/J1-HH | |
| GND C | | J1/P1-P | | P1/J1-FF | |
| WR DATA L | DS2 | J1/P1-R | | P1/J1-EE | |
| GND C | | J1/P1-S | | P1/J1-DD | |
| WR GATE L | DU2 | J1/P1-T | | P1/J1-CC | |
| ALIGN SIGN+ | DM1 | J1/P1-U | (1) | P1/J1-BB | |
| ALIGN SIGN- | DN1 | J1/P1-V | | P1/J1-AA | |
| SET CURR FAULT | DM2 | J1/P1-W | 4Ø COND R/W (GREY) | P1/J1-Z | FOR R/W BOARD CONN LAYOUT SEE SHEET 5 FIG. 1 |
| SET HD FAULT L | DV1 | J1/P1-X | | P1/J1-Y | |
| SET MULT HD L | DL2 | J1/P1-Y | | P1/J1-X | |
| | | J1/P1-Z | | P1/J1-W | |
| GND B | | J1/P1-AA | | P1/J1-V | |
| -15V | DB2 | J1/P1-BB | | P1/J1-U | |
| SET NO TRANSL | DK2 | J1/P1-CC | | P1/J1-T | |
| SET NO TRANSL | DK2 | J1/P1-DD | | P1/J1-S | |
| UNS TST | DJ2 | J1/P1-EE | | P1/J1-R | |
| | | J1/P1-FF | | P1/J1-P | |
| GND B | | J1/P1-HH | | P1/J1-N | |
| +15V | DD2 | J1/P1-JJ | | P1/J1-M | |
| +25A | DE2 | J1/P1-KK | | P1/J1-L | |
| +25A | DE2 | J1/P1-LL | | P1/J1-K | |
| +5A | DA2 | J1/P1-MM | | P1/J1-J | |
| +5A | DA2 | J1/P1-NN | | P1/J1-H | |
| | | J1/P1-PP | | P1/J1-F | |
| HDØ L | DE1 | J1/P1-RR | | P1/J1-E | |
| HD1 L | DH2 | J1/P1-SS | | P1/J1-D | |
| HD2 L | DF2 | J1/P1-TT | | P1/J1-C | |
| GND A | | J1/P1-UU | | P1/J1-B | |
| GND A | | J1/P1-VV | | P1/J1-A | |

| SIGNAL NAME | SERVO PREAMP (SPA) PIN | WIRE COLOR | CABLE NUMBER | M77Ø8 BACKPLANE PIN (TPD) | REMARKS |
|---|---|---|---|---|---|
| +15V | SP1-J1/P1-2 | ORN | (3) | SLOT 8 CD2 | |
| GND | SP1-J1/P1-3 | BLK | | SLOT 8 CC2 | |
| SVO PRE B | SP1-J1/P1-6 | BLU | | SLOT 8 DP2 | |
| SVO PRE COM | SP1-J1/P1-7 | WHT | TWINAX SERVO PREAMP | SLOT 8 DMT | DRAIN |
| SVO PRE A | SP1-J1/P1-8 | CLEAR | | SLOT 8 DJ2 | |

PIN-1 / PIN-9 — THIS SIDE UP

SERVO PREAMP P1

XP6 XP7 XP8

| XP6 | | | | | | XP7 | | XP8 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| A | C | E | H | K | M | P | S | U | W | |
| 02 | 04 | 06 | 08 | 10 | 12 | 02 | 04 | 02 | 04 | |
| B | D | F | J | L | N | R | T | V | X | |
| 01 | 03 | 05 | 07 | 09 | 11 | 01 | 03 | 01 | 03 | |

CONNECTOR TX-1Ø

AS VIEWED FROM SIDE AND TOP OF DRIVE THE 2Ø PIN CABLE ON BOTTOM THE THREE XP CABLES ON TOP

| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN PIN | CABLE NUMBER | CONNECTOR TX-1Ø CONN | CONNECTOR TX-1Ø CONN | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| HD LD #2 (BUCKING) | CR2 | J3/P3-A | | P/J1Ø-X | J/P8-3 | YEL | (4A) | HLT-5 | |
| HD LD COMMON | CS2 | J3/P3-B | | P/J1Ø-W | J/P8-4 | GRY | | HLT-4 | |
| HD LD #1 (TACH) | CP2 | J3/P3-C | | P/J1Ø-V | J/P8-1 | GRN | 3 COND HEAD LOAD TACH | HLT-3 | |
| GND | | J3/P3-D | (4) | P/J1Ø-U | J/P8-2 | — | | — | |
| HOME L | CN2 | J3/P3-E | | P/J1Ø-T | J/P7-3 | ORN | (4B) | HLM2S1-4 | |
| +25V | CE2 | J3/P3-F | | P/J1Ø-S | J/P7-4 | VIO | | HLSOL-1 | |
| HOME LOCK RELEASE L | CM2 | J3/P3-H | 2Ø COND (GREY) | P/J1Ø-R | J/P7-1 | YEL | 4 COND HOME SW HOME LOCK | HLSOL-2 | |
| GND | | J3/P3-J | | P/J1Ø-P | J/P7-2 | BLK | | HLM2S1-3 | |
| LIM PA (SEE NOTE) | CL2 | J3/P3-K | POSITIONER AREA | P/J1Ø-N | J/P6-11 | VIO | | PXU12 | |
| GND | | J3/P3-L | | P/J1Ø-M | J/P6- | — | | | |
| + COS PA | CK2 | J3/P3-M | | P/J1Ø-L | J/P6-9 | GRN | (4C) | PXU9 | |
| GND | | J3/P3-N | SEE PAGE 5 FIG. 4 FOR CABLE CARD CONN LAYOUT | P/J1Ø-K | J/P6- | — | | | |
| -SIN PA | CJ2 | J3/P3-P | | P/J1Ø-J | J/P6-7 | YEL | 8 COND PHOTO TRANSDUCER | PXU14 | |
| GND | | J3/P3-R | | P/J1Ø-H | | — | | | |
| | | J3/P3-S | | P/J1Ø-F | | — | | | |
| +15V | CD2 | J3/P3-T | | P/J1Ø-E | J/P6-6 | ORN | | PXU4 | |
| LED CATHODE | CH1 | J3/P3-U | | P/J1Ø-D | J/P6-3 | WHT | | PXU6 | |
| -15V | CB2 | J3/P3-V | | P/J1Ø-C | J/P6-4 | BLU | | PXU8 | |
| GLASS XDR COM (GND) | CF1 | J3/P3-W | | P/J1Ø-B | J/P6-1 | BLK | | PXU1 | |
| +5V | CA2 | J3/P3-X | | P/J1Ø-A | J/P6-2 | RED | | PXU2 | |

TOP

FLEX STRIP 0 5 4 3 2 1 — HLT

NYLON PLUNGER — 1 2 SOL STEEL — NC-3 NC-2 NC-4 NC-1 — M2S1 — BRN — HOME SWITCH

HL HOME LOCK SOLENOID

TOP

10 11 12 13 14 / 1Ø 20 30 40 50 60 70 80 90

PX PHOTO TRANSDUCER PREAMP BOARD 5411881

| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN-PIN | CABLE NUMBER | R/W-BOARD (RW) CABLE CONN-PIN | REMARKS |
|---|---|---|---|---|---|
| +15 | DD2 | J2/P2-A | (2) | P2/J2-X | |
| +15 | DD2 | J2/P2-B | | P2/J2-W | |
| GND D | | J2/P2-C | | P2/J2-V | |
| GND D | | J2/P2-D | | P2/J2-U | |
| -5 | DR2 | J2/P2-E | 2Ø COND R/W (GREY) | P2/J2-T | FOR R/W BOARD CONN LAYOUT SEE SHEET 5 FIG. 1 |
| -5 | DR2 | J2/P2-F | | P2/J2-S | |
| GND | | J2/P2-H | | P2/J2-R | |
| GND | | J2/P2-J | | P2/J2-P | |
| +5C | DA2 | J2/P2-K | | P2/J2-N | |
| +5C | DA2 | J2/P2-L | | P2/J2-M | |
| GND D | | J2/P2-M | | P2/J2-L | |
| GND D | | J2/P2-N | | P2/J2-K | |
| WR GATE L | CV1 | J2/P2-P | | P2/J2-J | |
| GND D | | J2/P2-R | | P2/J2-H | |
| RD DATA 2 L | CU2 | J2/P2-S | | P2/J2-F | FOR CABLE CARD CONN LAYOUT SEE SHEET 5 FIG. 4 |
| GND D | | J2/P2-T | | P2/J2-E | |
| RD DATA 1 L | CU1 | J2/P2-U | | P2/J2-D | |
| GND D | | J2/P2-V | | P2/J2-C | |
| GND D | | J2/P2-W | | P2/J2-B | |
| GND D | | J2/P2-X | | P2/J2-A | |

| SIGNAL NAME | PHOTO TRANSDUCER WIRING: PREAMP (PX) | WIRE COLOR | CABLE NUMBER | TRANSDUCER ASSEMBLY (TX) | REMARKS |
|---|---|---|---|---|---|
| SIN X (E1) | PX-U5 | YEL | (4C1) | TX-E1 | |
| -COS-X (E2) | PX-U13 | GRN | | TX-E2 | |
| LIM-X (E3) | PX-U3 | VIO | 6 WIRES (PART OF PHOTO TRANS ASSY) | TX-E3 | SEE NOTE |
| PHOTO DIODE CATH (+5V) | PX-U11 | BRN | | TX-+5 | |
| LED ANODE (+5V) | PX-U7 | RED | | TX-AN | |
| LED CATHODE | PX-U1Ø | WHT | | TX-CA | |

+5 E2 E1 E3

TX

NOTE:
ON SOME RKØ7'S THE LIMPA CHANNEL HAS BEEN ELIMINATED AS NOT REQUIRED FOR RKØ7 THEREFORE THESE INTERCONNECTIONS WILL NOT EXIST

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

FOR SERIAL # 53380 AND HIGHER

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE | SHEET 8 OF 14 | DIST | | |

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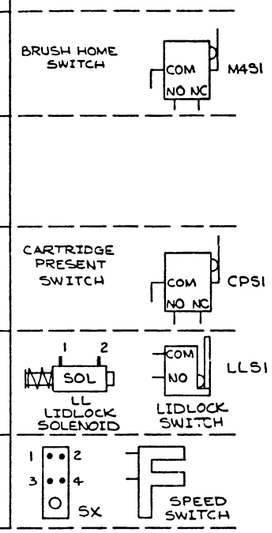
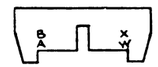
| SIGNAL NAME | CABLE CARD (CC) SLOT-1 BACK-PLANE PIN | CABLE CARD (CC) SLOT-1 CABLE CONN-PIN | CABLE NUMBER | CONNECTOR TX-9 SEE LAYOUT BELOW CONN | CONNECTOR TX-9 SEE LAYOUT BELOW CONN | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| BRUSH HOME SW L | BN2 | J5/P5-A | | P9/J9-X | J5/P5-11 | BLU | (5A) | M4SI-NO | |
| BRUSH HOME SW H | BP2 | J5/P5-B | | P9/J9-W | J5/P5-12 | YEL | | M4SI-NC | |
| | BM2 | J5/P5-C | | P9/J9-V | J5/P5-9 | | | | |
| GND | | J5/P5-D | (5) | P9/J9-U | J5/P5-8 | BLK | 3 COND BRUSH HOME SW | M4SI-COM | |
| DR IN PLACE SOL L | BL2 | J5/P5-E | | P9/J9-T | J4/P4-7 | | | | |
| +25V | BE2 | J5/P5-F | 2Ø | P9/J9-S | J4/P4-8 | | | | |
| DR IN PLACE L | BK2 | J5/P5-H | COND | P9/J9-R | J4/P4-5 | | NOT USED | | |
| GND | | J5/P5-J | (GREY) | P9/J9-P | J4/P4-6 | | | | |
| CART PRES L | BJ2 | J5/P5-K | | P9/J9-N | J3/P5-3 | VIO | (5B) | CPSI-NO | |
| GND | | J5/P5-L | CHASSIS | P9/J9-M | J3/P5-4 | | | | |
| | BH2 | J5/P5-M | AREA | P9/J9-L | J3/P5-1 | | | | |
| GND | | J5/P5-N | SEE PAGE 5 FIG. 4 | P9/J9-K | J3/P5-2 | RED | 2 COND CART PRESENT | CPSI-COM | |
| LID LOCKED L | BF2 | J5/P5-P | FOR CABLE BOARD LAYOUT | P9/J9-J | J2/P2-3 | BLU | (5C) | LLSI-NO | |
| GND | | J5/P5-R | | P9/J9-H | J2/P2-4 | BLK | | LLSI-COM | |
| +25V | BE2 | J5/P5-S | | P9/J9-F | J2/P2-1 | VIO | 4 COND LID LOCK | LLSOL-1 | |
| LID LOCKED SOL L | BE1 | J5/P5-T | | P9/J9-E | J2/P2-2 | YEL | | LLSOL-2 | |
| SPINDLE SPEED | BC1 | J5/P5-U | | P9/J9-D | J1/P1-3 | BRN | (5D) | SX-2 | |
| GND | | J5/P5-V | | P9/J9-C | J1/P1-4 | YEL | | SX-1 | |
| LED CATHODE | BB1 | J5/P5-W | | P9/J9-B | J1/P1-2 | BLK | | SX-3 | |
| LED ANODE (+5) | BA1 | J5/P5-X | | P9/J9-A | J1/P1-1 | RED | 4 COND SPEED TRANS | SX-4 | |




| SIGNAL NAME | CABLE CARD (CN) SLOT-1 BACK-PLANE PIN | CABLE CARD (CN) SLOT-1 CABLE CONN PIN | CABLE NUMBER | POWER SUPPLY ELECTRONICS BOARD (PSA1) CONN PIN | REMARKS |
|---|---|---|---|---|---|
| EMITTER TEST PT | BU1 | J4/P4-A | | A1-P2/J2-X | |
| SPARE | BV1 | J4/P4-B | | A1-P2/J2-W | |
| AC LOW L | CE1 | J4/P4-C | | A1-P2/J2-V | |
| GND | | J4/P4-D | (7) | A1-P2/J2-U | |
| SPINDLE ON L | CD1 | J4/P4-E | | A1-P2/J2-T | |
| GND | | J4/P4-F | 2Ø COND | A1-P2/J2-S | |
| EN BRUSHES L | CC1 | J4/P4-H | POWER | A1-P2/J2-R | |
| GND | | J4/P4-J | SUPPLY | A1-P2/J2-P | |
| SPINDLE BRAKE L | CB1 | J4/P4-K | SIGNAL | A1-P2/J2-N | |
| GND | | J4/P4-L | | A1-P2/J2-M | |
| ▲ REMOTE SENSE C | CA1 | J4/P4-M | (GREY) | A1-P2/J2-L | |
| GND (ANALOG) | | J4/P4-N | | A1-P2/J2-K | |
| CURRENT COMMAND | BV2 | J4/P4-P | | A1-P2/J2-J | |
| GND | | J4/P4-R | | A1-P2/J2-H | |
| REMOTE SENSE A (UNUSED) | BU2 | J4/P4-S | | A1-P2/J2-F | |
| GND | | J4/P4-T | | A1-P2/J2-E | |
| ▲ REMOTE SENSE B | BS2 | J4/P4-U | | A1-P2/J2-D | |
| GND (UNUSED) | | J4/P4-V | | A1-P2/J2-C | |
| DC LOW L | BR2 | J4/P4-W | | A1-P2/J2-B | |
| GND | | J4/P4-X | | A1-P2/J2-A | |

▲ REMOTE SENSE C IS ANALOG GND
REMOTE SENSE B IS GND

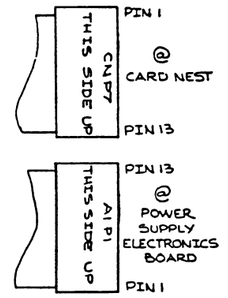



PIN A IS FRONT PIN CLOSEST TO BOARD

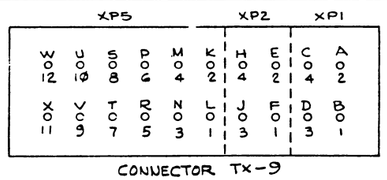
AB

PIN REVERSAL CABLE CARD BOARD M9Ø16 TO POWER SUPPLY BOARD H767 5411Ø42

| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | CARD NEST POWER (CN) | REMARKS |
|---|---|---|---|---|---|
| +5V | A1-J1/P1-1 | RED | | CN-P7/J7-1 | |
| +5V | A1-J1/P1-2 | RED | | CN-P7/J7-2 | |
| +5V | A1-J1/P1-3 | RED | (8) | CN-P7/J7-3 | |
| +5V | A1-J1/P1-4 | RED | | CN-P7/J7-4 | |
| +25V | A1-J1/P1-5 | VIO | 12 COND | CN-P7/J7-5 | |
| +15V | A1-J1/P1-6 | ORN | DC | CN-P7/J7-6 | |
| GND | A1-J1/P1-7 | BLK | POWER | CN-P7/J7-7 | |
| GND | A1-J1/P1-8 | BLK | | CN-P7/J7-8 | |
| GND | A1-J1/P1-9 | BLK | | CN-P7/J7-9 | |
| GND | A1-J1/P1-10 | BLK | | CN-P7/J7-10 | |
| -15V | A1-J1/P1-11 | BLU | | CN-P7/J7-11 | |
| -5V | A1-J1/P1-12 | GRN | | CN-P7/J7-12 | |

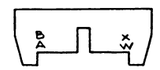



| SIGNAL NAME | CABLE CARD (CN) SLOT-1 BACK-PLANE PIN | CABLE CARD (CN) SLOT-1 CABLE CONN PIN | CABLE NUMBER | OPERATOR CONTROL PANEL (CP) CONN PIN | REMARKS |
|---|---|---|---|---|---|
| UØ L | AR2 | J6/P6-A | | P1/J1-X | |
| U1 L | AS2 | J6/P6-B | | P1/J1-W | |
| U2 L | AP2 | J6/P6-C | | P1/J1-V | |
| RUN(1) H | AU2 | J6/P6-D | (6) | P1/J1-U | |
| WRL(1) L | AN2 | J6/P6-E | | P1/J1-T | |
| STOPPED LITE H | AV2 | J6/P6-F | 2Ø COND | P1/J1-S | |
| QUAL L | AM2 | J6/P6-H | OPER | P1/J1-R | |
| GND | | J6/P6-J | CONTROL | P1/J1-P | |
| RUN SW L | AL2 | J6/P6-K | PANEL | P1/J1-N | |
| GND | | J6/P6-L | | P1/J1-M | |
| +5 | AA2 | J6/P6-M | (GREY) | P1/J1-L | |
| +5 | AA2 | J6/P6-N | | P1/J1-K | |
| READY (Ø) H | AK2 | J6/P6-P | | P1/J1-J | |
| FAULT L | AB1 | J6/P6-R | | P1/J1-H | |
| SW EN B L | AJ2 | J6/P6-S | | P1/J1-F | |
| SW EN A H | AC1 | J6/P6-T | | P1/J1-E | |
| WR PROT SW L | AH2 | J6/P6-U | | P1/J1-D | |
| UNUSED | | J6/P6-V | | P1/J1-C | |
| DR SEL A | AF2 | J6/P6-W | | P1/J1-B | |
| DR SEL B | AE2 | J6/P6-X | | P1/J1-A | |




CONNECTOR TX-9

AS VIEWED FROM FRONT AND TOP OF DRIVE
THE 2Ø PIN CABLE ON TOP
THE 3 XP CABLES ON BOTTOM

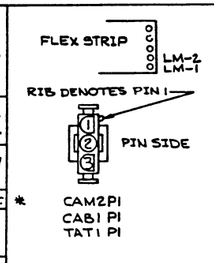



OPERATOR CONTROL PANEL CONN PIN LAYOUT
PIN A IS FRONT PIN CLOSEST TO BOARD

AB

PIN REVERSAL CABLE CARD BOARD M9Ø16 TO OPERATOR CONTROL PANEL BOARD 5411823

| SIGNAL NAME | POWER SUPPLY (PS) | WIRE COLOR | CABLE NUMBER | CONN # CHASSIS AREA (CA) TRANSFORMER AREA (TA) | WIRE COLOR | CABLE NUMBER | TERMINAL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| LIN MTR-RET | A1J3/P3-1 | RED | | CAM2J1/P1-3 | WHT | (14) | LM-2 | LINEAR MOTOR |
| LIN MTR-PWR | A1J3/P3-2 | RED | | CAM2J1/P1-1 | BRN | 3 WIRE | LM-1 | |
| BATTERY + | A1J3/P3-3 | BRN | (9) | CAB1J1/P1-1 | BRN | (15) | B1-POS | BATTERY |
| BATTERY − | A1J3/P3-4 | BLK | POWER SUPPLY | CAB1J1/P1-3 | BLK | ASSY | B1-NEG | |
| | | | SEE NOTE | CAB1J1/P1-2 | GRN | | HLM2S1-NC-2 | HOME SW NC * |
| 13V RMS | A1J3/P3-6 | YEL | | TAT1J1/P1-1 | YEL | (12C) | TRANSFORMER | |
| 13V RMS | A1J3/P3-7 | YEL | | TAT1J1/P1-2 | YEL | | | |
| GND | A1J3/P3-8 | BLK | | TAT1J1/P1-3 | YEL/BLK | 3 WIRE | | |
| | | | | CAB1J1-2 | GRN | JUMPER | CAM2J1-1 | |




NOTE. SEE PAGE 5 FIG. 3 FOR PWR SUPPLY ELECTRONIC BOARD A1 CONN LAYOUT, FIG 6 FOR CA AREA LAYOUT.

* THIS WIRE PHYSICALLY PART OF CABLE 14

FOR SERIAL # 53380 AND HIGHER

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE | SHEET 9 OF 14 | | DIST. | |

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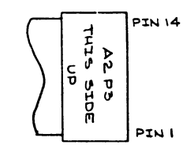
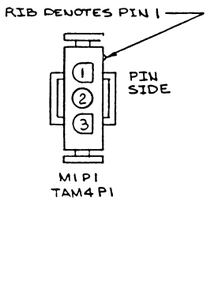
| SIGNAL NAME | CONN | WIRE COLOR | CABLE NUMBER | CONN | WIRE COLOR | CABLE NUMBER | CONN | CABLE NUMBER | WIRE COLOR | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| SPINDLE BRAKE PS[110V] | A2J1/P1-3 | RED | | SBT2 P1 | | | | | | SEE SPINDLE BRAKE P.S. SCHEMATIC CS |
| SPINDLE BRAKE PS[NEUT] | A2J1/P1-4 | WHT | | SBDC-1 | | | | | | |
| 12V BRAKE VOLT | A2J1/P1-9 | BLU | | SBDC+ | | | | | | |
| BRUSH MTR (HOT)[110V] | A2J1/P1-1 | RED | (10) | TB1J1/P1-2 | RED | | M4J1/P1-1 | (11A) | BLK | TO BRUSH MOTOR |
| BRUSH MTR(LOW)[NEUT] | A2J1/P1-2 | WHT | | TB1J1/P1-1 | WHT | | M4J1/P1-3 | | BLK | |
| SPINDLE MTR (LOW) | A2J1/P1-5 | WHT | SEE PAGE 5 FIG. 2 FOR PWR SUPPLY CAP BOARD A2 CONN LAYOUT | TB1J1/P1-3 | WHT | (11) | M3J1/P1-2 | (11B) | RED | TO SPINDLE MOTOR |
| SPINDLE MTR (HOT) | A2J1/P1-6 | RED | | TB1J1/P1-4 | RED | | M3J1/P1-1 | | BLU | |
| 110VAC (HOT) | A2J1/P1-7 | RED | | TB1J1/P1-6 | RED | | CBJ1/P1-1 | | | SEE PAGE 6 FOR CB LAYOUT |
| 110VAC (NEUT) | A2J1/P1-8 | WHT | | TB1J1/P1-5 | WHT | | CBJ1/P1-2 | | | |
| SPINDLE MTR CAP-N | M3C1-2 | WHT | (11C) | TAM3J1-2 | | | | | | |
| SPINDLE MTR CAP-M | M3C1-1 | BLK | | TAM3J1-3 | | | | | | |
| GND | CHASSIS | GRN/YEL | (11) | TAM3J1-4 | | | | | | SP MTR |
| GND | M3J1-4 | GRN/YEL | SEE PAGE 5 FIG. 5 FOR TA CONN LAYOUT | M4J1-4 | | | | | | BRK MTR |
| GND | M4J1-4 | GRN/YEL | | M1J1-4 | | | | | | BLO MTR |
| 110VAC (HOT) | CBJ1/P1-3 | RED | | M1J1/P1-1 | RED | | | | | BLOWER MOTOR |
| 110VAC (NEUT) | CBJ1/P1-4 | WHT | | M1J1/P1-3 | WHT | | | | | |

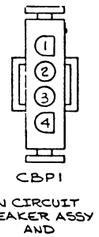
| SIGNAL NAME | SOURCE | WIRE COLOR | CABLE NUMBER | TRANSFORMER | REMARKS |
|---|---|---|---|---|---|
| | PS | | | | |
| +10V COMMON | A2J3/P3-1 | BLU/WHT | (12A) 12 COND | SECONDERY | SEE PAGE 5 FIG. 2 FOR POWER SUPPLY ELECT BOARD (A2) CONN LAYOUT |
| +10V COMMON | A2J3/P3-2 | BLU/WHT | | | |
| +25V COMMON | A2J3/P3-3 | GRN/WHT | | | |
| +25V COMMON | A2J3/P3-4 | GRN/WHT | | | |
| 37V RMS | A2J3/P3-7 | GRN/BLK | | | |
| 37V RMS | A2J3/P3-8 | GRN/BLK | | | |
| 37V RMS | A2J3/P3-9 | GRN | | | |
| 37V RMS | A2J3/P3-10 | GRN | | | |
| 13V RMS | A2J3/P3-11 | BLU/BLK | | | |
| 13V RMS | A2J3/P3-12 | BLU/BLK | | | |
| 13V RMS | A2J3/P3-13 | BLU | | | |
| 13V RMS | A2J3/P3-14 | BLU | | | |
| | CB | | | | |
| 110VAC (HOT) | T1J1/P1-1 | BRN | (12B) | PRIMARY | CB IS CIRCUIT BREAKER ASSY SEE PAGE |
| 110VAC (NEUT) | T1J1/P1-2 | BRN/WHT | | | |
| 110VAC (HOT) | T1J1/P1-3 | BLK | | | |
| 110VAC (NEUT) | T1J1/P1-4 | BLK/WHT | | | |

POWER SUPPLY CAP BOARD

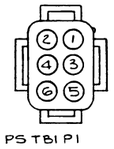


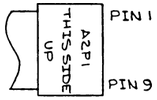

NOTE:
1. TWO RED WIRES CONNECT TRANSFORMER T1 AND TRANSFORMER CAPACITOR TIC1
2. WIRING SAME 50HZ OR 60HZ TRANSFORMER



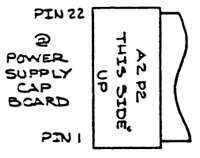

ON CIRCUIT BREAKER ASSY AND TA M3 P1

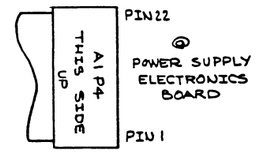



POWER SUPPLY CAP BOARD

| SIGNAL NAME | POWER SUPPLY PS | WIRE COLOR | CABLE NUMBER | POWER SUPPLY PS | REMARKS |
|---|---|---|---|---|---|
| +10V | A1P4/J4-1 | YEL | (13) 19 COND | A2J2/P2-1 | SEE PAGE 5 FIG. 2 FOR P.S. CAP BOARD (A2) CONN LAYOUT FIG. 3 FOR P.S. ELECT BOARD (A1) CONN LAYOUT |
| +10V | A1P4/J4-2 | YEL | | A2J2/P2-2 | |
| +10V | A1P4/J4-3 | YEL | | A2J2/P2-3 | |
| +10V | A1P4/J4-4 | YEL | | A2J2/P2-4 | |
| BATTERY | A1P4/J4-6 | BRN | | A2J2/P2-6 | |
| LINEAR MOTOR PWR | A1P4/J4-7 | VIO | | A2J2/P2-7 | |
| LINEAR MTR DRIVER | A1P4/J4-8 | GRY | | A2J2/P2-8 | |
| -10V | A1P4/J4-9 | BRN | | A2J2/P2-9 | |
| -25V | A1P4/J4-10 | GRY | | A2J2/P2-10 | |
| -25V | A1P4/J4-11 | GRY | | A2J2/P2-11 | |
| +25V | A1P4/J4-12 | VIO | | A2J2/P2-12 | |
| +25V | A1P4/J4-13 | VIO | | A2J2/P2-13 | |
| GND | A1P4/J4-16 | BLK | | A2J2/P2-16 | |
| GND | A1P4/J4-17 | BLK | | A2J2/P2-17 | |
| GND | A1P4/J4-18 | BLK | | A2J2/P2-18 | |
| GND | A1P4/J4-19 | BLK | | A2J2/P2-19 | |
| SPINDLE BRAKE L | A1P4/J4-20 | RED | | A2J2/P2-20 | |
| EN BRUSHES L | A1P4/J4-21 | RED | | A2J2/P2-21 | |
| SPINDLE ON L | A1P4/J4-22 | RED | | A2J2/P2-22 | |




NOTE:
PINS 5, 14, AND 15 UNUSED

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

FOR SERIAL # 53380 AND HIGHER

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE | SHEET 10 OF 14 | | DIST | |

RKØ7-Ø-3 REV A

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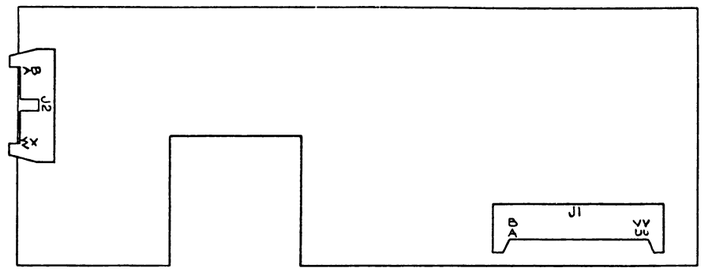
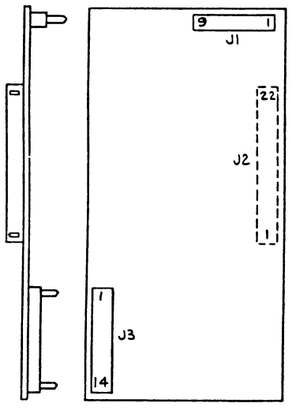
FIG. 1



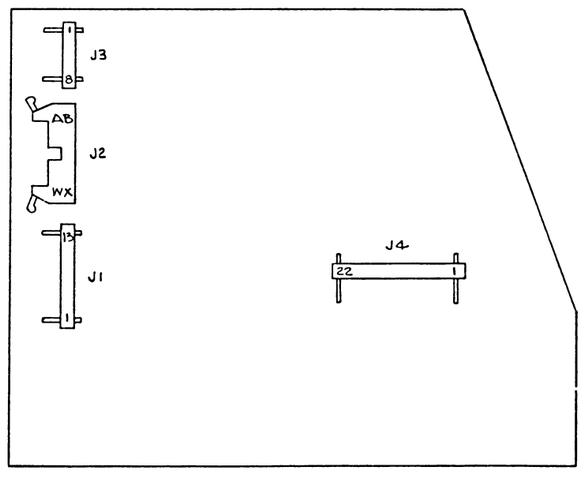

R/W BOARD CONNECTOR LABELING
NOTE: PIN A FRONT PIN, CLOSEST TO BOARD

FIG. 2



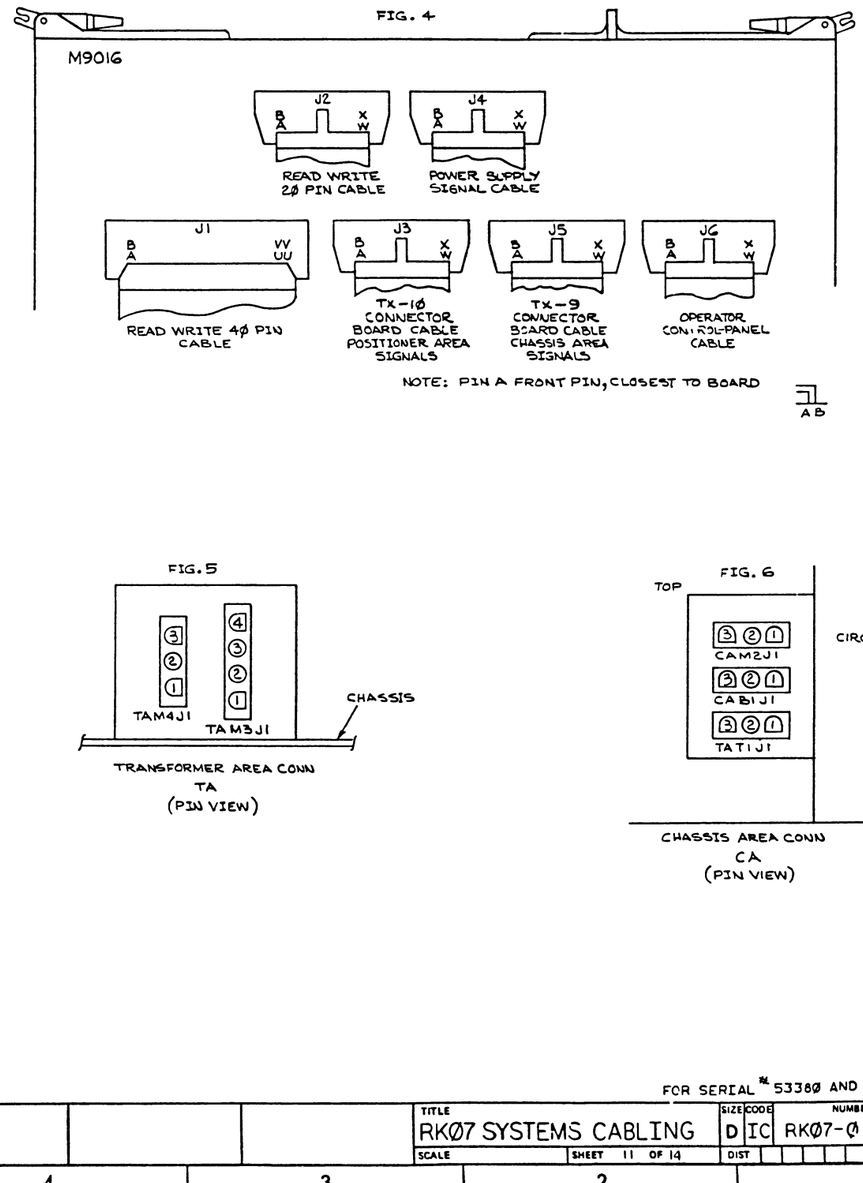

POWER SUPPLY
CAP BOARD
A2

FIG. 3




H767 POWER SUPPLY BOARD
A1

FIG. 4



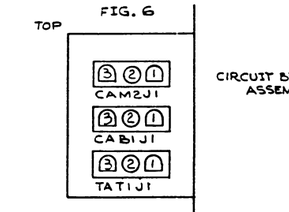

NOTE: PIN A FRONT PIN, CLOSEST TO BOARD

FIG. 5




TRANSFORMER AREA CONN
TA
(PIN VIEW)

FIG. 6




CHASSIS AREA CONN
CA
(PIN VIEW)

FOR SERIAL # 53380 AND HIGHER

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
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| SCALE | SHEET 11 OF 14 | DIST | | |

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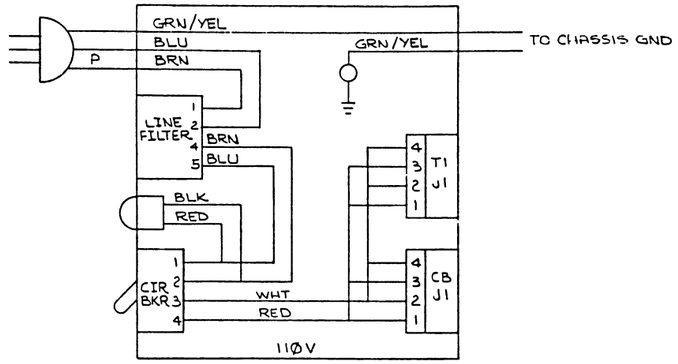
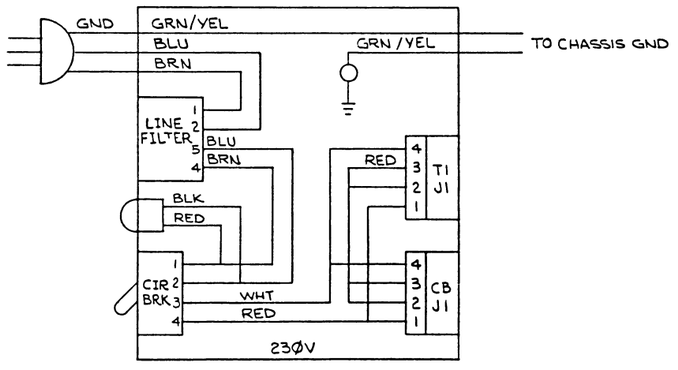
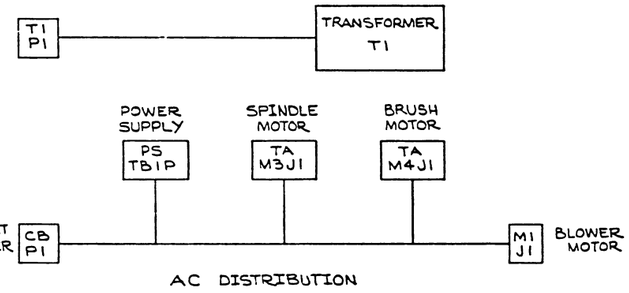



CIRCUIT BREAKER ASSEMBLY

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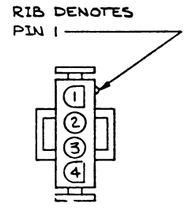


CBJ1 AND CBT1

FOR SERIAL* 53380 AND HIGHER

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
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| SCALE | SHEET 12 OF 14 | DIST | | |

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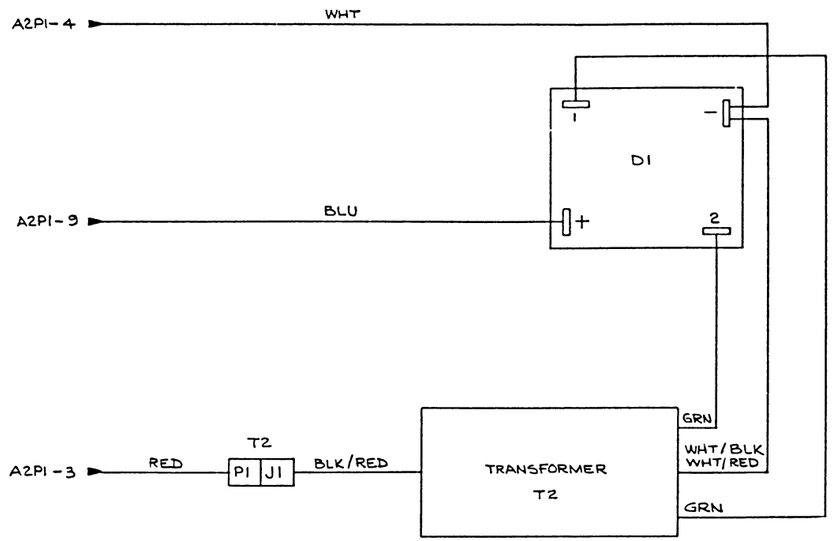


SPINDLE BRAKE
POWER SUPPLY
PART OF H7G7-A-Ø POWER SUPPLY

FOR SERIAL # 5338Ø AND HIGHER

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ7 SYSTEMS CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE | SHEET 13 OF 14 | DIST | | |

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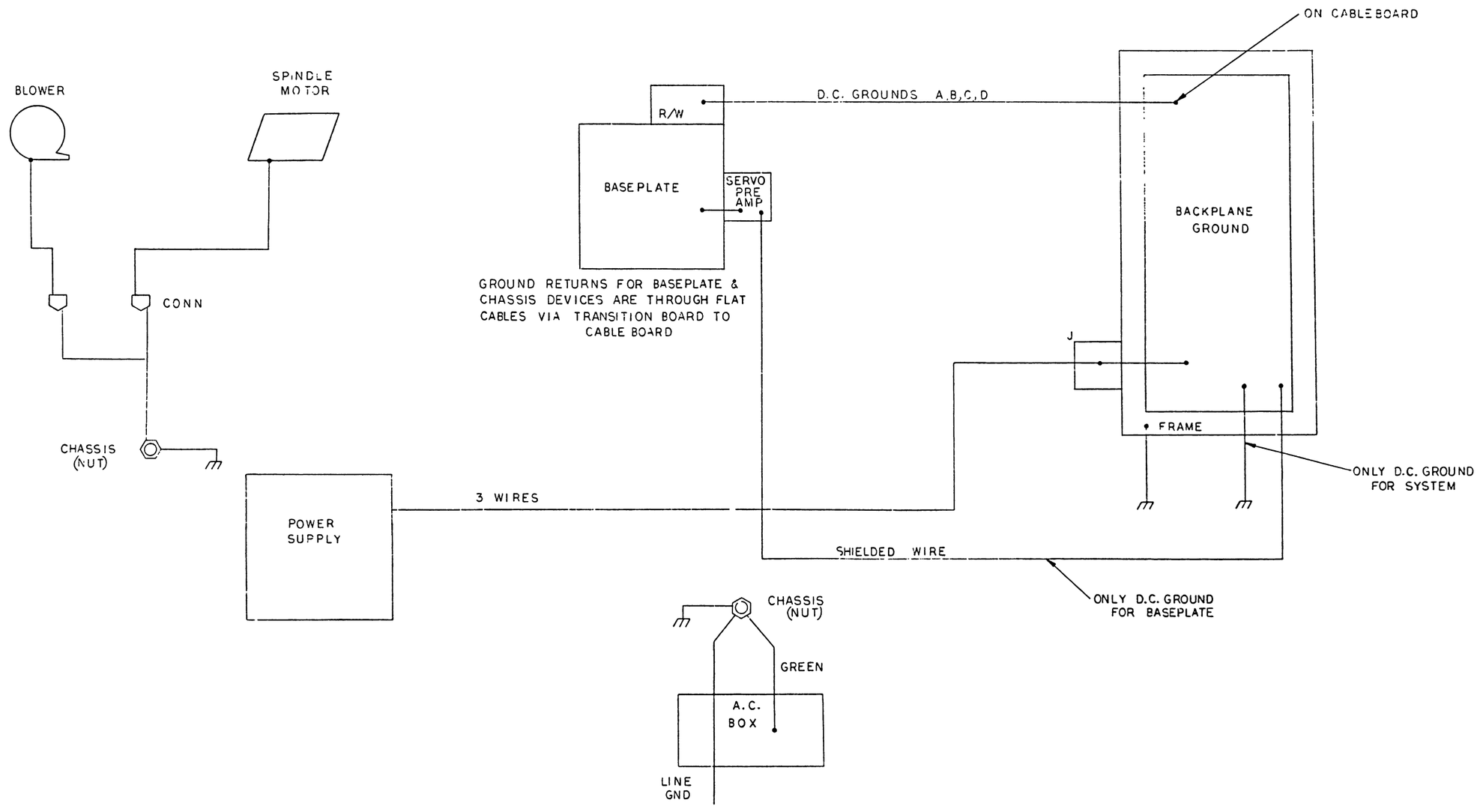


RKØ6/7 SYSTEM GROUND FOR ALL SER.* DRIVE

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RK06/7 SYSTEM CABLING | D | IC | RKØ7-Ø-3 | A |
| SCALE - | SHEET 14 OF 14 | | DIST. | |

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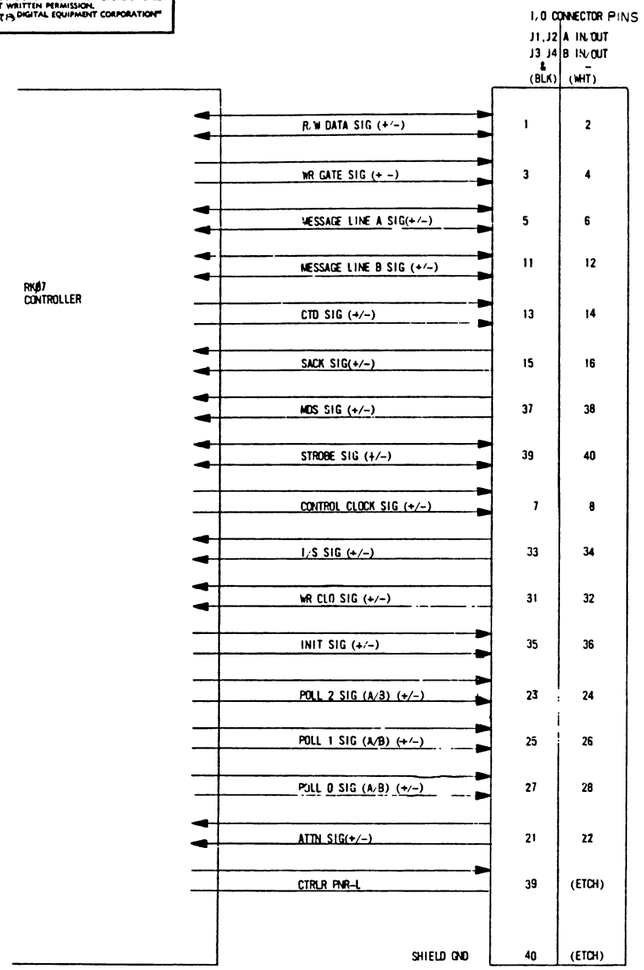
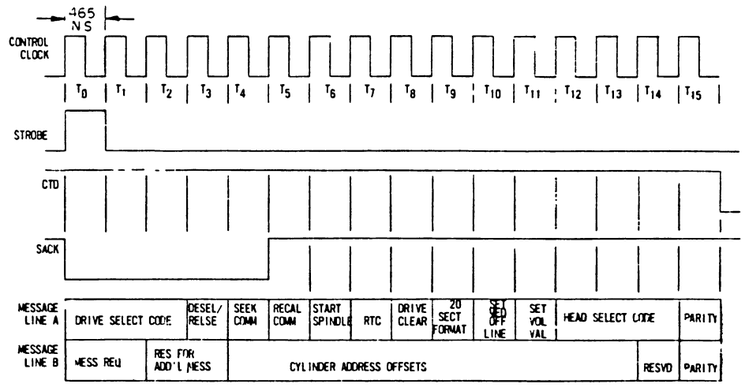
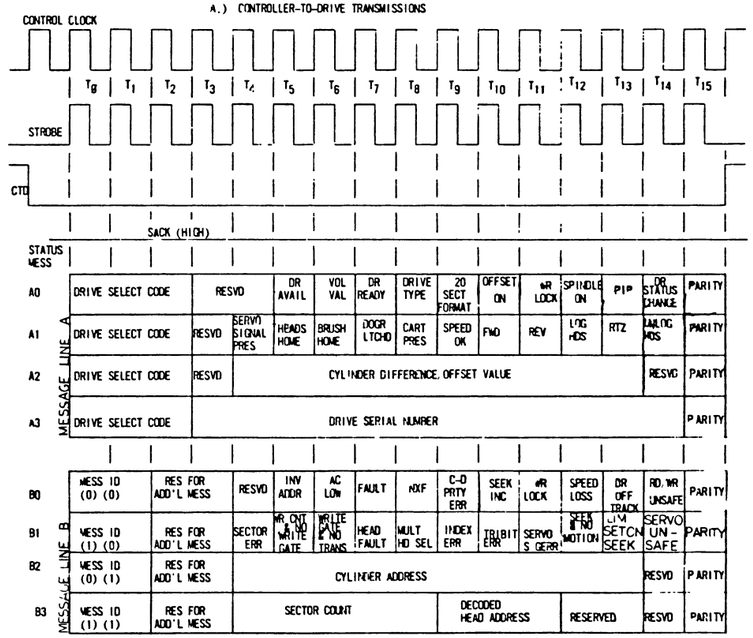



NOTE.
1. DUAL LINES INDICATE SIGNALS ARE DIFFERENTIAL PAIRS.
2. ARROWS INDICATE SIGNAL DIRECTIONS.




A.) CONTROLLER-TO-DRIVE TRANSMISSIONS




B.) DRIVE-TO- CONTROLLER TRANSMISSIONS

| REVISIONS | CHANGE NO. | CHK | REV. |
|---|---|---|---|
| | | | |

| | | | |
|---|---|---|---|
| DRN. | | | FIRST USED ON RK07 |
| CHK'D | | | digital |
| ENG. | | | TITLE INTERFACING TIMING & STATUS |
| PROJ. ENG. | | | |
| PROD | | | |
| NEXT HIGHER ASSY. | | | B-DD-RK07-J |
| SCALE | | | SIZE D CODE TD NUMBER RK07-Ø-9 REV |
| SHEET 1 OF 1 | | | DIST. |

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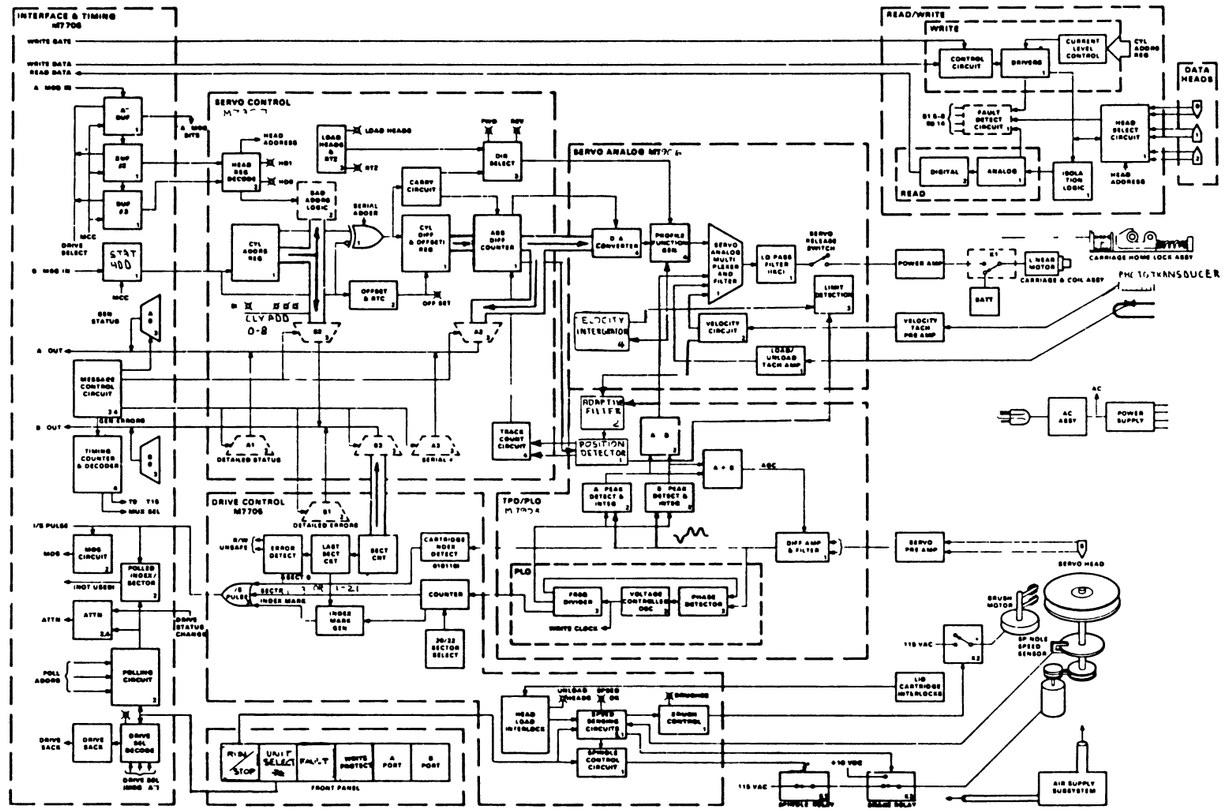


| REVISIONS | | |
|---|---|---|
| REV | CHANGE NO | CHK |

| FIRST USED ON OPTION/MODEL | QTY. | DESCRIPTION | PART NO. | ITEM NO. |
|---|---|---|---|---|
| RKØ7 | | PARTS LIST | | |

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES

TOLERANCES

| DECIMALS | ANGLES |
|---|---|
| xxx ± 005 | ±0 30' |
| xx = 02 | |
| x = .1 | |

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY √

MATERIAL —//—

FINISH —//—

| | | DATE |
|---|---|---|
| DRN. | John Nagle | 9 JAN 78 |
| CHKD. | Gene Shaw | 12 JAN 78 |
| ENG | John Nagle | 12 JAN 78 |
| PROJ. ENG | L E Lawson | 13 Jan 78 |
| PROD | L E Lawson | 13 Jan 78 |

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE

# FUNCTIONAL BLOCK DIAGRAM

NEXT HIGHER ASSY. B-DD-RKØ7-Ø

SCALE —//—

SHEET 1 OF 1

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| C | BD | RKØ7-Ø-1Ø | |

DIST

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| C | BD | RKØ7-Ø-1Ø | B |

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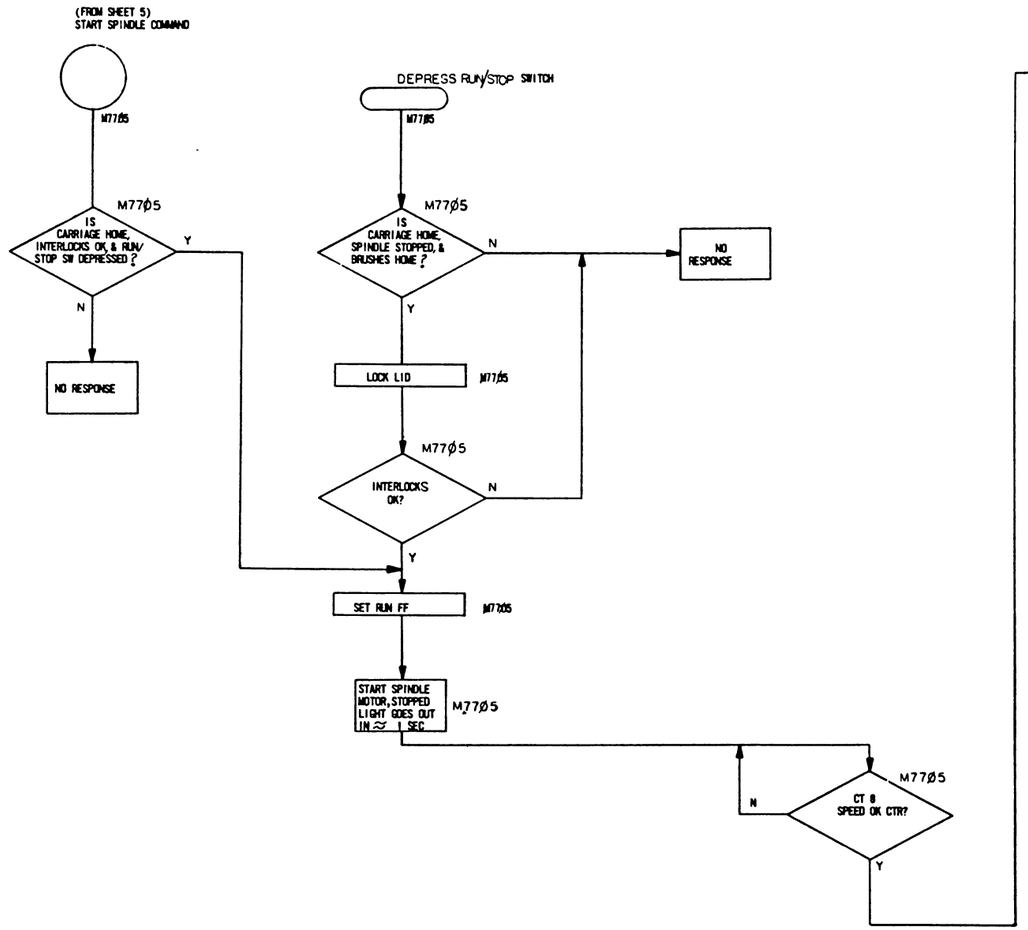
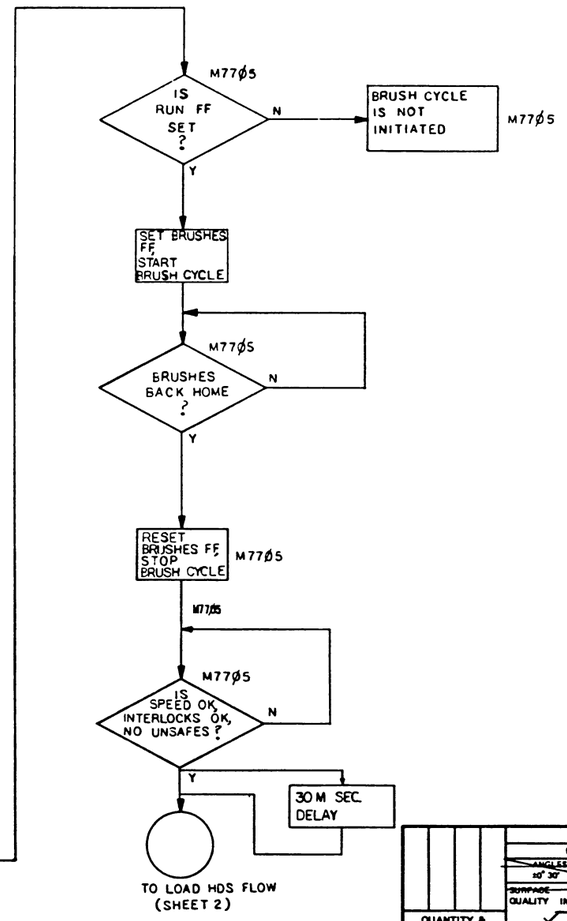
NOTE:
* FOR RKØ7 ONLY.
** FOR RKØ7:
M77Ø7 IS REPLACED WITH M79Ø7
M7729 IS REPLACED WITH M79Ø6




| REVISIONS | REV. | CHANGE NO. | CHK. |
|---|---|---|---|
| | | | |

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL —

FINISH —

| DESCRIPTION | DWG./PART NO. | ITEM NO. |
|---|---|---|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | | |

| ANGLES ±0° 30' | GRADE OF ACCURACY (CHECK ONE) | NOMINAL DIMENSION RANGE (INCHES) OVER 0 TO 0.7 | OVER 0.7 TO 1.3 | OVER 1.3 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 | OVER 40.0 TO 80.0 |
|---|---|---|---|---|---|---|---|
| SURFACE QUALITY IN MICROINCHES | MEDIUM ☐ | ±.004 | ±.008 | ±.012 | ±.016 | ±.026 | ±.04 |
| | PREFERRED ☐ | ±.002 | ±.004 | ±.006 | ±.01 | ±.016 | ±.02 |

| | | |
|---|---|---|
| DRN. | | |
| CHK'D | | |
| ENG. | | |
| PROJ. ENG. | | |
| PROD. | | |
| NEXT HIGHER ASSY. | | |
| B-DD-RKØ7-Ø | | |
| SCALE | — | |
| SHEET | 1 OF 7 | |

FIRST USED ON RKØ6

digital

TITLE
RKØ6/7
FLOW CHART

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | FD | RKØ6/7-Ø-2 | |
| DIST. | | | |

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(FROM SHEET 1)
LD HDS FLOW

RK07

FOR RK06 ONLY

LIM-H?
M7707
N
Y

SET LD HDS FF,
RESET CYL ADDR REG,
SET FWD FF,
GEN. LD HDS VEL,
RESET DIFF CTR,
RELEASE HOME LOCK,

ENABLE FWD SERVO,

ENABLE LD/UNLD TACH,

HEADS MOVE FWD @ 5 IPS
* HEADS MOVE FWD @ 8 IPS

M7707 **M7907
M7707 **M7907
M7707 **M7907
M7707, M7729 **M7907 M7906
M7707 **M7907
M7705

M7705, M7729 **M7906

M7707, M7729 **M7907 M7906

IS OUTER LIM HIGH?
N
Y
M7729 **M7906

SET BETWEEN LIM FF,
ENABLE GLASS TACH,
DISABLE LD/UNLD TACH
TACH
HDS MOVE FWD @ 1 IPS
* HDS MOVE FWD @ .8 IPS

M7729 **M7906
M7729 " "
M7707, M7729 **M7907, M7906

INNER LIMIT?
N
Y
M7729 **M7906

RESET FWD FF,
RESET LD HDS FF

M7707
M7707 **M7907

TO RTZ FLOW (THIS SHEET)

(FROM SHEET 5)
RECAL COMMAND

M7707

POSITIONING IN PROGRESS? *IS READY LOW
N
Y
M7707

NO RESPONSE

(FROM THIS SHEET)
RTZ FLOW

SET RTZ FF,
SET REV FF,
RESET DIFF CTR,
RESET CYL ADD REG,
ENABLE REV SERVO,
HDS MOVE @ 1 IPS IN REV
* HDS MOVE @ .8 IPS IN REV

M7707
M7707
M7707
M7707
M7707
M7707, M7729
** M7907 M7906

IS OUTER LIMIT HIGH?
N
Y
M7729 **M7906

RESET REV FF,
SET FWD FF,
DISABLE REV SERVO,
ENABLE FWD SERVO

M7707
M7707
M7707, M7729
M7707, M7729
**M7907, M7906

TRK CT PULSE ?
N
Y
M7707 **M7907

RESET FWD FF & RTZ FF,
DISABLE FWD SERVO,
ENABLE POSITION MODE—DETENT ON NEXT SERVO CROSSING

M7707
M7707, M7729
M7707, M7729
**M7907 M7906

AFTER 3 MS,
SET READY FF,
READY INDICATOR LIGHTS

SET OSC FF & GENERATE ATTN.

M7705
M7705
FRONT PANEL

M7705, M7706

(FROM SHEET 5)
SET MEDIUM OFF LINE

RELEASE RUN/STOP SWITCH

IS UNLD HDS FF SET?
M7705
N
Y

SET UNLD HDS FF,
RESET FWD FF,
SET DSC FF,
GENERATE ATTN

M7705
M7707 **, M7907
M7705, M7707 **M7907
M7706

IS CARRIAGE HOME?
Y
N

SET REV FF,
RESET READY,
ENABLE REV SERVO,
RESET DIFF CTR,
RESET CYL ADDR REG,
READY INDICATOR GOES OFF

M7707 **
M7705
M7707, M7729 **
M7707 **
M7707 **
FRONT PANEL

IS BET LIM FF SET?
N
Y
M7729 **M7906

HEADS MOVE BACK @ 11PS
* HEADS MOVE BACK @ 8 IPS

IS CARRIAGE HOME?
N
Y

OUTER LIMIT SENSED?
N
Y
M7729

RESET BET LIM FF
M7729 **
M7906

ENABLE LD/UNLD TACH,
HDS MOVE @ 5 IPS
* HDS MOVE BACK @ 8 IPS

M7707, M7729 **M7907, M7906

RESET REV FF,
DISABLE REV SERVO,
RESET RUN FF,
STOP SPINDLE MOTOR,
DISABLE LD/UNLD TACH,
ENABLE SPINDLE BRAKE AFTER 100 MS

M7707 **
M7707, M7729 **
M7705
M7705
M7707, M7729 **
M7705

IS DISK STOPPED ?
N
Y
M7705

RELEASE LID LOCKED SOL,
TURN ON STOPPED INDICATOR,
DISABLE SPINDLE BRAKE

M7705
FRONT PANEL
M7705

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RK06/7 FLOW CHART | D | FD | RK06/7-0-2 | |
| SCALE —H | SHEET 2 OF 7 | DIST. | | |

DEC FORM NO. DIRD 1.07

SIZE D | CODE FD | NUMBER RK06/7-0-2 | REV.

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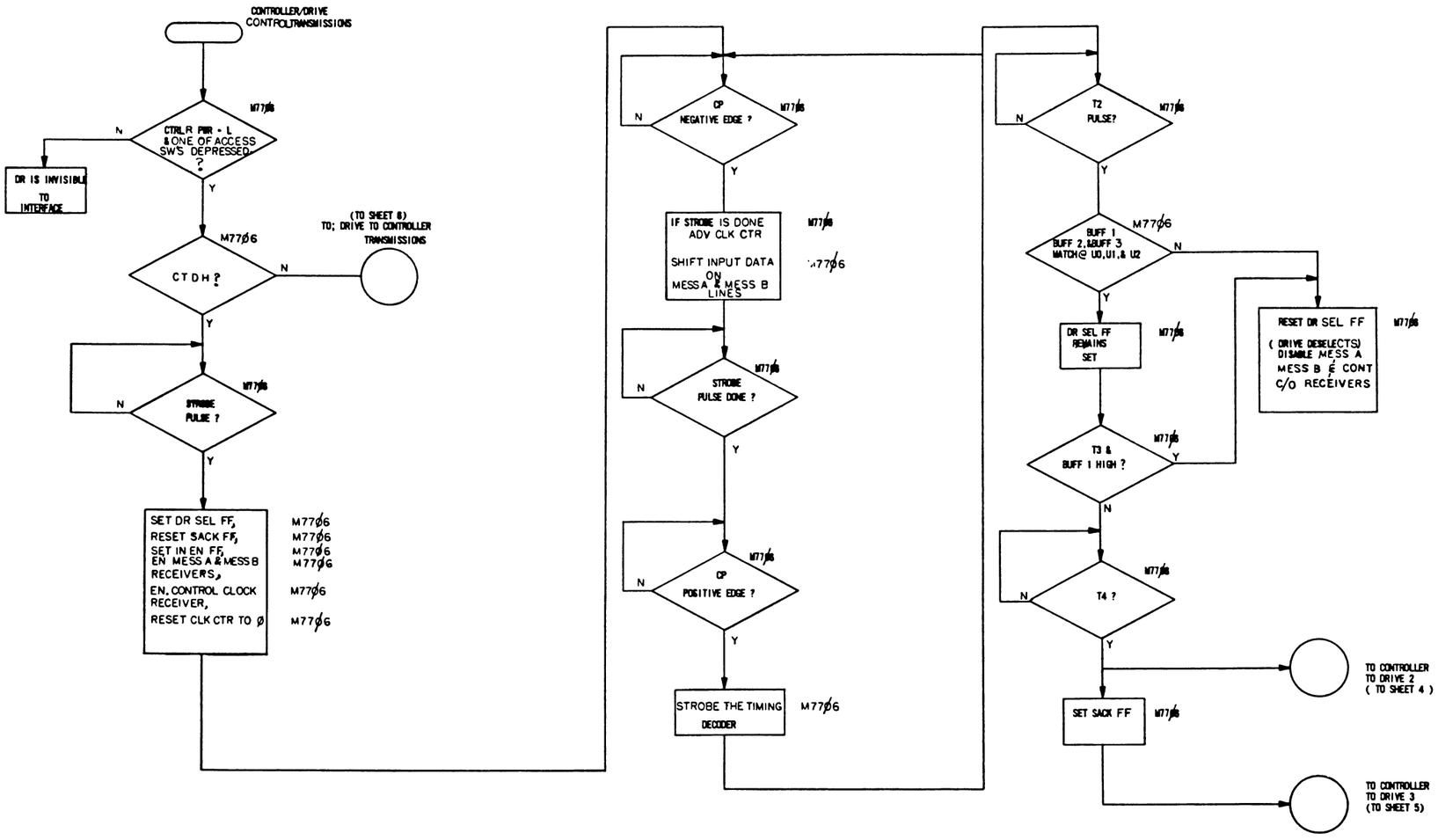


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6/7 FLOW CHART | D | FD | RKØ6/7-Ø-2 | |
| SCALE —/— SHEET 3 OF 7 | DIST. | | | |

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CONTROLLER TO DRIVE (SEEK/OFFSET COMMAND FLOW)
2
(FROM SHEET 3)

AT T4, IS VOL VAL HIGH & PIP LOW ? M7701 * *
N
Y
* AT T4, IS VOL VAL HIGH + READY LOW

VOL VAL LOW? M7705
N
Y

SET NXF FF & DSC FF, GENERATE FAULT & ATTN M7705 M7706 M7705 M7706

POSITIONING IS IN PROGRESS, DRIVE WILL NOT RESPOND.

SET ADD EN FF FF M7701 * *

BUFF 1 HIGH ? M7706
N
Y

SET SK COMM FF M7707 * *

SHIFT CYL ADD REG M7701 * *
STROBE CARRY FF

SHIFT CYL DIFF REG M7701 * *

T12 TRAILING EDGE ? M7701 * *
Y
N
* T13 TRAILING EDGE

CP POSITIVE EDGE ? M7701 * *
N
Y

SK COMM SET ? M7701 * *
Y
N

RESET ADD EN FF M7701 * *

T14 ? M7701 * *
N
Y

SK COMM SET ? M7701 * *
Y
N

DIFF 6 DIFF 7 HIGH AND CARRY LOW? M7701 * *
N
Y

THIS X MISSION IS NEITHER A SEEK NOR AN OFFSET FUNCTION

GENERATE OFFSET COMM, SET OFFSET FF, SET SETTLING O.S., RESET READY, LD DIFF CTR
M7707 M7707 M7705 M7705 M7701

HDS MOVE TO OFFSET POSITION, AFTER 3 MS SETTLING, SET READY, GENERATE ATTN M7705 M7706

LD HEAD ADDRESS FF'S M7701 * *

DIFF Ø THROUGH DIFF 8 HIGH & CARRY RESET M7701 * *
N
Y
* DIFF Ø THRU 9

RTC FF SET ? M7701 * *
N
Y

GENERATE RD Ø TRK-L SET DSC & GENERATE ATTN M7707 M7706

LOAD DIFF CTR, IF OFFSET IS SET, RESET IT, M7701 * *
RESET READY & GENERATE SETTLING M7705
AFTER 3 MS SET READY, DSC, & GENERATE ATTN M7705 M7706

T15 ? M7701 * *
N
Y

RESET IN EN FF ON T15 TRAILING EDGE M7706

CARRY FF SET ? M7701 * *
N
Y

INCREMENT DIFF CTR BY ONE COUNT M7701 * *

T15 P EXT ? M7701 * *
N
Y

FAULT ? M7701 * *
Y
N

GO TO SEEK CONTROL FLOW (TO SHEET 7 )

SEEK WILL NOT OCCUR

NOTE: * * M79Ø7 FOR RKØ7.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6/7 FLOW CHART | D | FD | RKØ6/7-0-2 | |
| SCALE -/- SHEET 4 OF 7 | DIST. | | | |

DEC FORM NO. DRB 137

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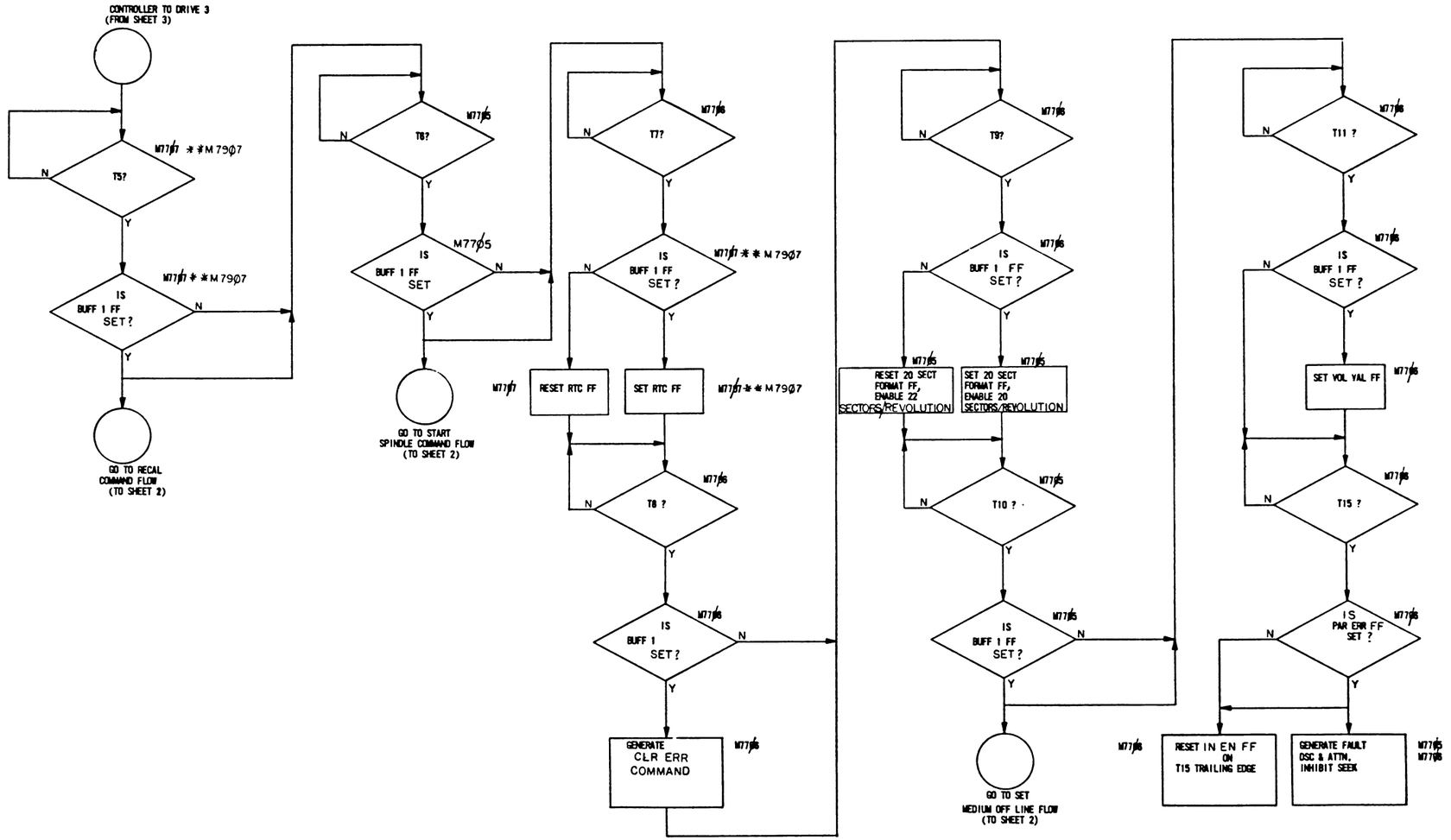


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6/7 FLOW CHART | D | FD | RKØ6/7-Ø-2 | |
| SCALE -++- SHEET 5 OF 7 | DIST. | | | |

DEC FORM NO. DRD 137

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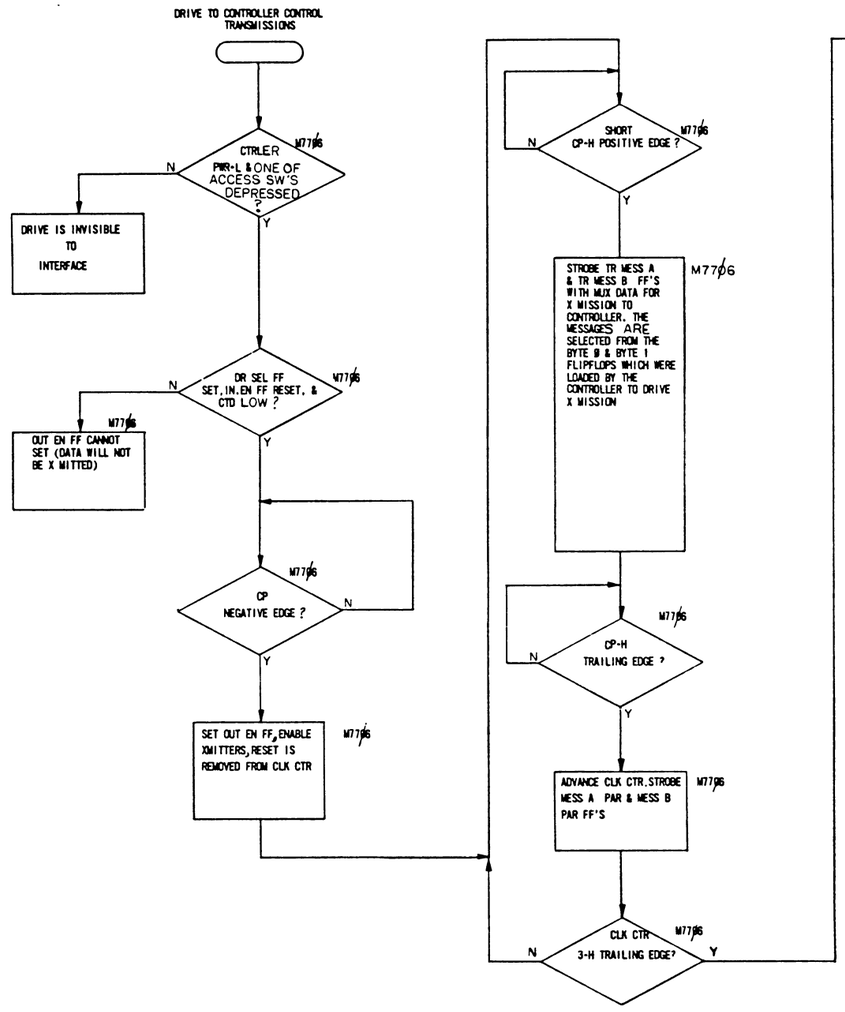


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6/7 FLOW CHART | D | FD | RKØ6/7-Ø-2 | |
| SCALE -/- SHEET 6 OF 7 | DIST. | | | |

DEC FORM NO. DRD 137

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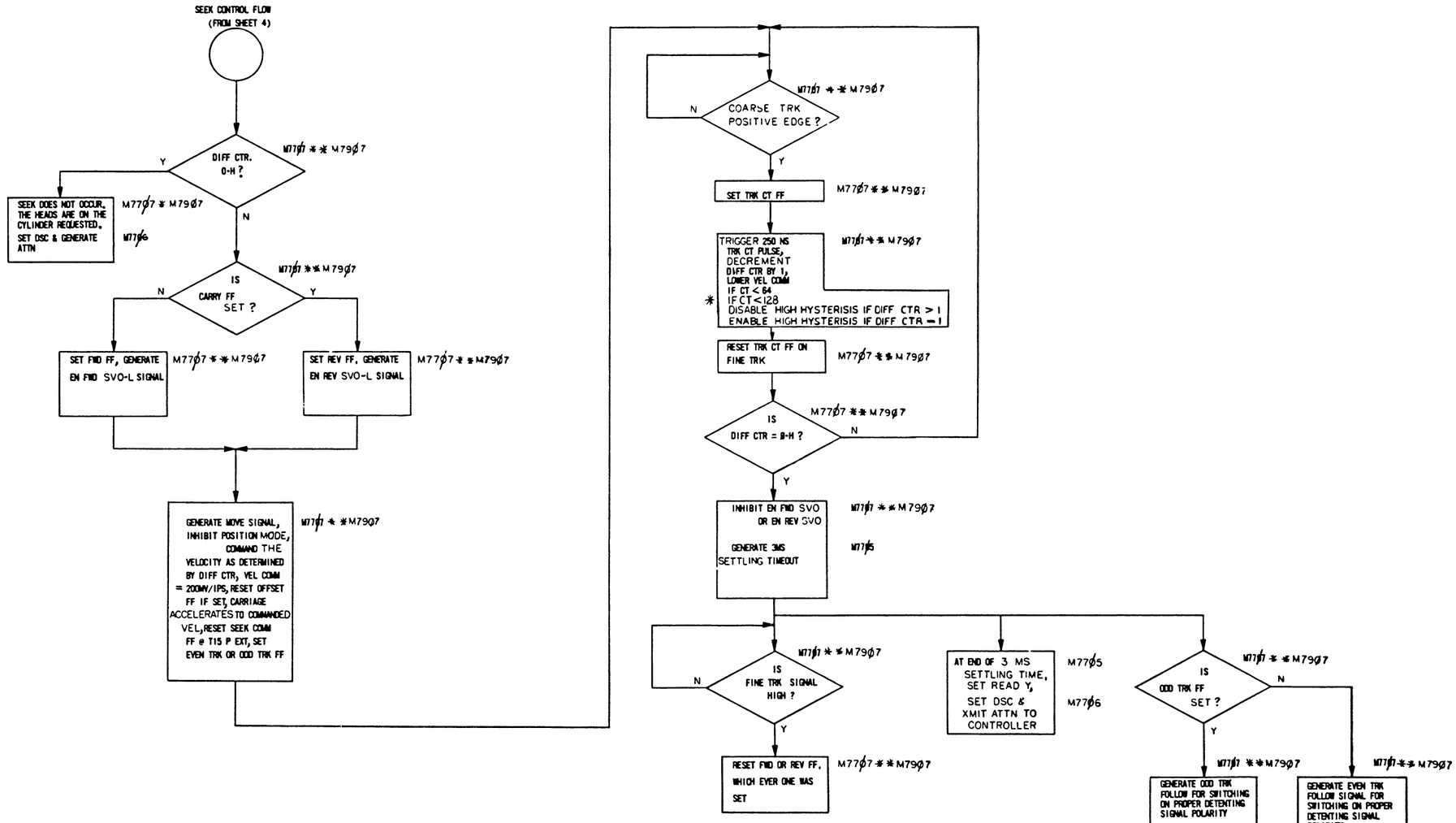


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ67 FLOW CHART | D | FD | RKØ67-Ø-2 | |
| SCALE -/- SHEET 7 OF 7 | DIST. | | | |

DEC FORM NO. DFD 127

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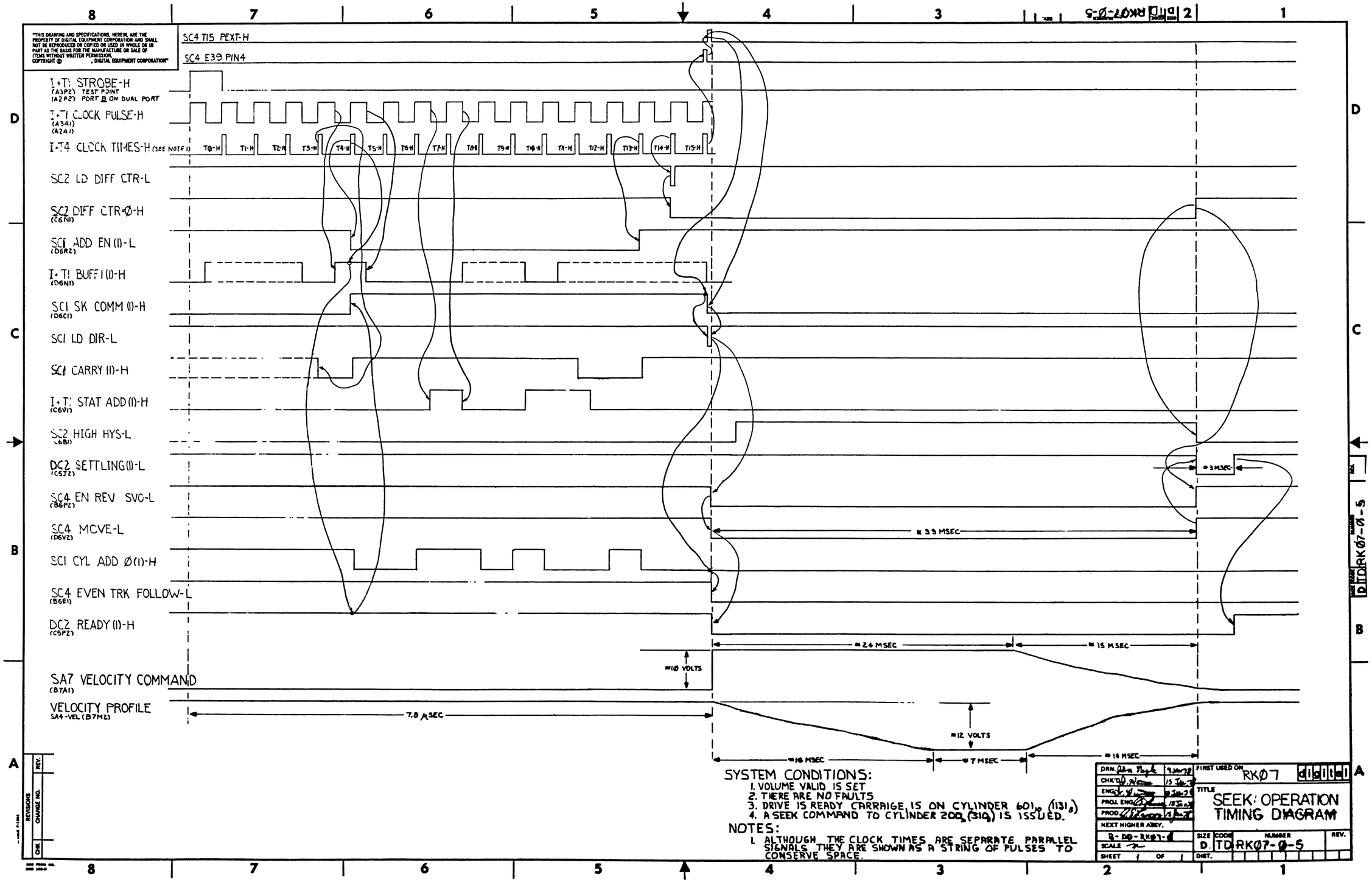


SYSTEM CONDITIONS:
1. VOLUME VALID IS SET
2. THERE ARE NO FAULTS
3. DRIVE IS READY CARRIAGE IS ON CYLINDER 601$_{10}$ (1131$_8$)
4. A SEEK COMMAND TO CYLINDER 200$_8$ (310$_8$) IS ISSUED.

NOTES:
1. ALTHOUGH THE CLOCK TIMES ARE SEPARATE PARALLEL SIGNALS, THEY ARE SHOWN AS A STRING OF PULSES TO CONSERVE SPACE.

| REVISIONS | REV. | CHANGE NO. | CHK. |
|---|---|---|---|
| | | | |

| | | |
|---|---|---|
| DRN. | | 7-Jan-78 |
| CHK'D | | 13-Jan-78 |
| ENG'G | | 18-Jan-78 |
| PROJ. ENG. | | 18-Jan-78 |
| PROD | | 13-Jan-78 |
| NEXT HIGHER ASSY. | | |
| B-DD-RK07-0 | | |
| SCALE | | |
| SHEET 1 OF 1 | | |

FIRST USED ON: RK07

TITLE: SEEK: OPERATION TIMING DIAGRAM

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | | D.TDRK07-0-5 | |

DIST.

D.TDRK07-0-5

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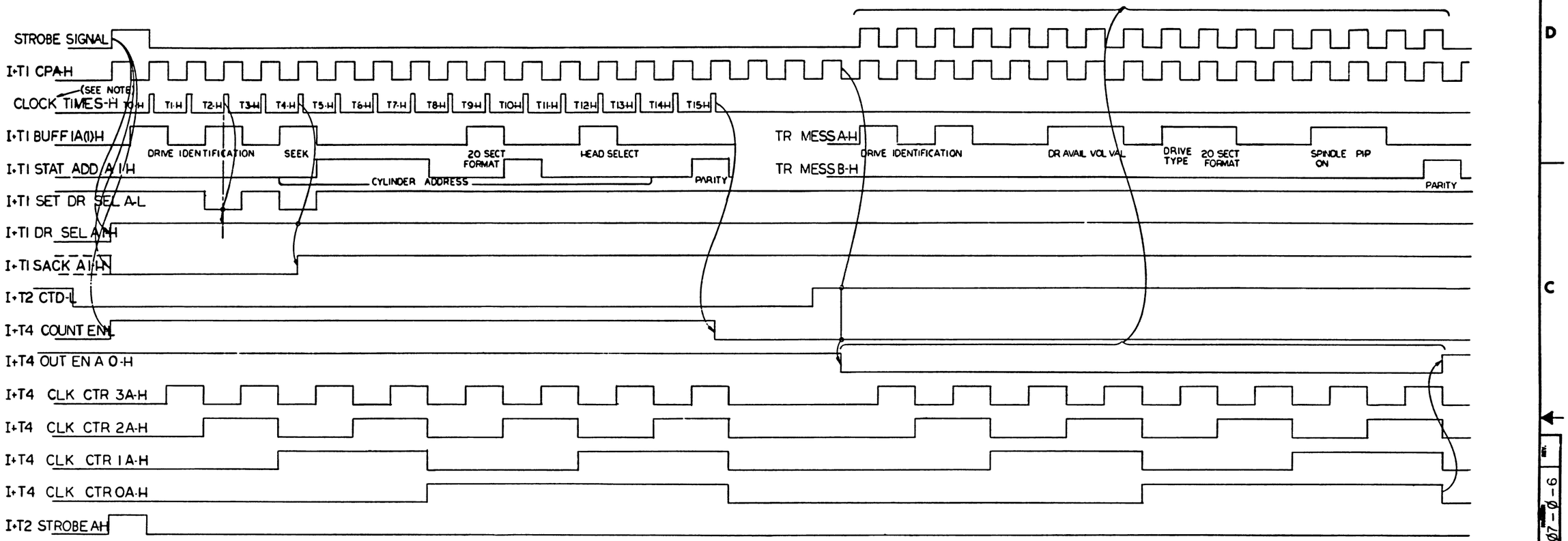


## SYSTEM CONDITIONS.

1. FRONT PANEL PORT ENABLE SWITCH IS DEPRESSED
2. DC VOLTAGES IN DRIVE ARE O.K.
3. VOLTAGES IN CONTROLLER ARE O.K.

NOTE. DURING THE CONTROLLER TO DRIVE TRANSMISSION

1. DRIVE NUMBER 5 IS SELECTED
2. A SEEK COMMAND TO CYLINDER 78 IS ISSUED.
3. FORMAT IS SET TO 20 SECTORS.
4. HEAD NUMBER 1 HAS BEEN SELECTED
5. ALTHOUGH THE CLOCK TIMES ARE SEPARATE SIGNALS THEY ARE SHOWN SERIALLY TO SAVE SPACE.

DURING THE DRIVE TO CONTROLLER TRANSMISSION

1. THE DRIVE IDENTIFIES ITSELF
2. TELLS CONTROLLER:
   - DRIVE IS AVAILABLE
   - VOLUME VALID IS SET
   - THERE IS A SEEK IN PROGRESS
   - FORMAT IS SET TO 20 SECTORS
   - SPINDLE IS ON.

REVISIONS: REV. | CHANGE NO. | DATE | BY

| | | |
|---|---|---|
| DRN | DJ Mingle | 2 Jan 79 |
| CHK | | 2 JAN 79 |
| ENG | | 12 Jan 79 |
| PROJ. EN | | 5 Jan 79 |
| PROJ | | 15 Jan 79 |
| NEXT HIGHER ASSY. | | |
| B-DD-RKØ7-Ø | | |
| SCALE | 4/1 | |
| SHEET | 1 OF 1 | |

FIRST USED ON: RKØ7 — digital

TITLE: INTERFACE TIMING

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | TD | RKØ7-Ø-6 | |

DIST.

DTD RKØ7-Ø-6

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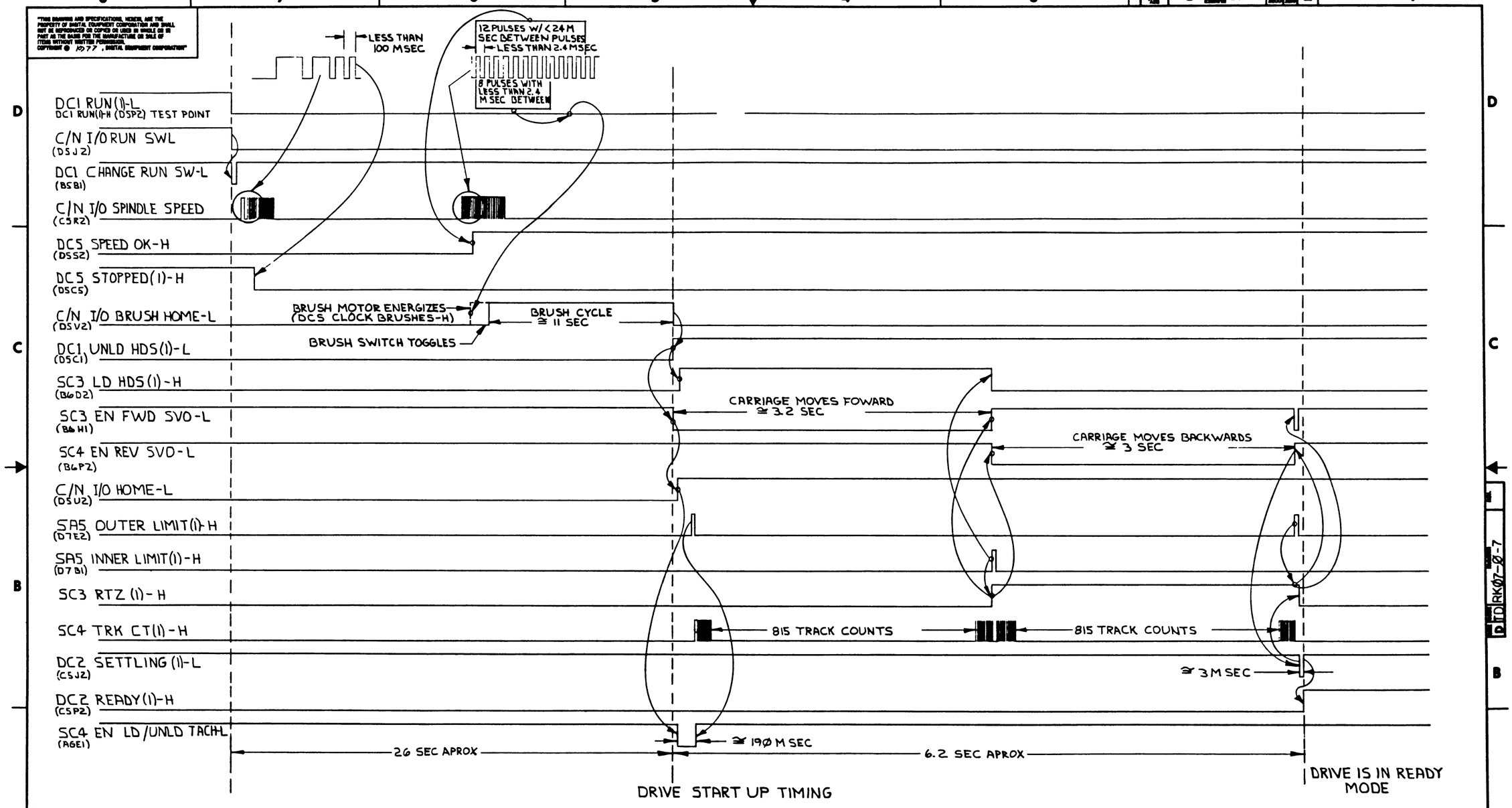


| | | | |
|---|---|---|---|
| DRN. | | | FIRST USED ON: RKØ7 |
| CHK'D | | | TITLE: START UP TIMING RKØ7 |
| ENG. | | | |
| PROJ. ENG. | | | |
| PROD. | | | |
| NEXT HIGHER ASSY. | | | |
| B-DD-RK07-0-1 | | | SIZE: D · CODE: TD · NUMBER: RKØ7-Ø-7 · REV. |
| SCALE | | | |
| SHEET 1 OF 1 | | | DIST. |

REVISIONS: REV. | CHANGE NO. | CHK

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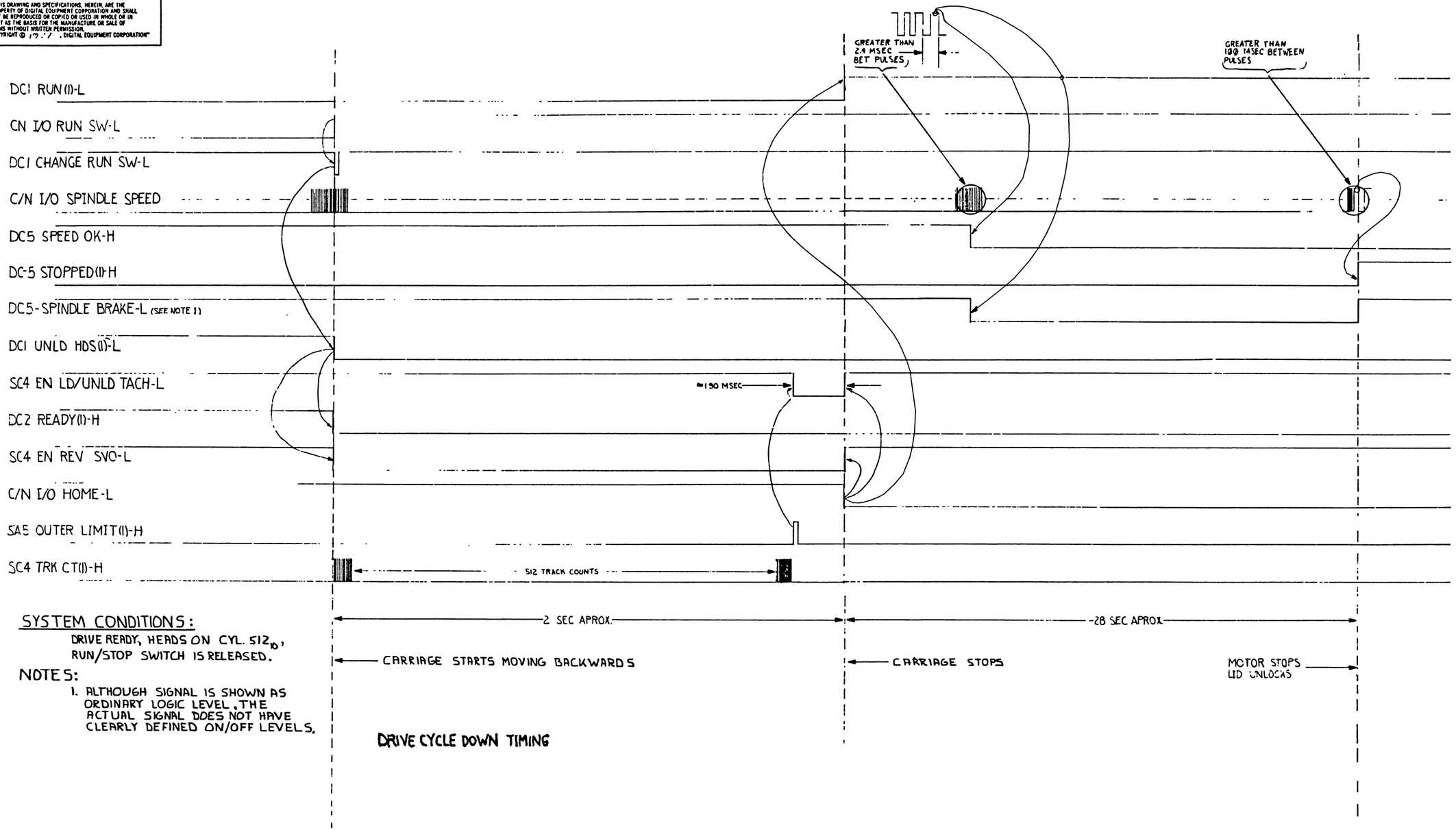


SYSTEM CONDITIONS:

DRIVE READY, HEADS ON CYL. $512_{10}$, RUN/STOP SWITCH IS RELEASED.

NOTES:

1. ALTHOUGH SIGNAL IS SHOWN AS ORDINARY LOGIC LEVEL, THE ACTUAL SIGNAL DOES NOT HAVE CLEARLY DEFINED ON/OFF LEVELS.

DRIVE CYCLE DOWN TIMING

| REVISIONS | REV. | CHANGE NO. | CHK |
|---|---|---|---|

| | | |
|---|---|---|
| DRN | | 9 JAN 78 |
| CHK'D | | 12 JAN 78 |
| ENG. | | 13 JAN 78 |
| PROJ. ENG. | | 13 JAN 78 |
| PROD. | | 13 JAN 78 |
| NEXT HIGHER ASSY. | B-DD-RKØ7-Ø | |
| SCALE | | |
| SHEET | 1 OF 1 | |

FIRST USED ON: RKØ7 — digital

TITLE: CYCLE DOWN TIMING

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | TD | RKØ7-Ø-8 | |

DIST.

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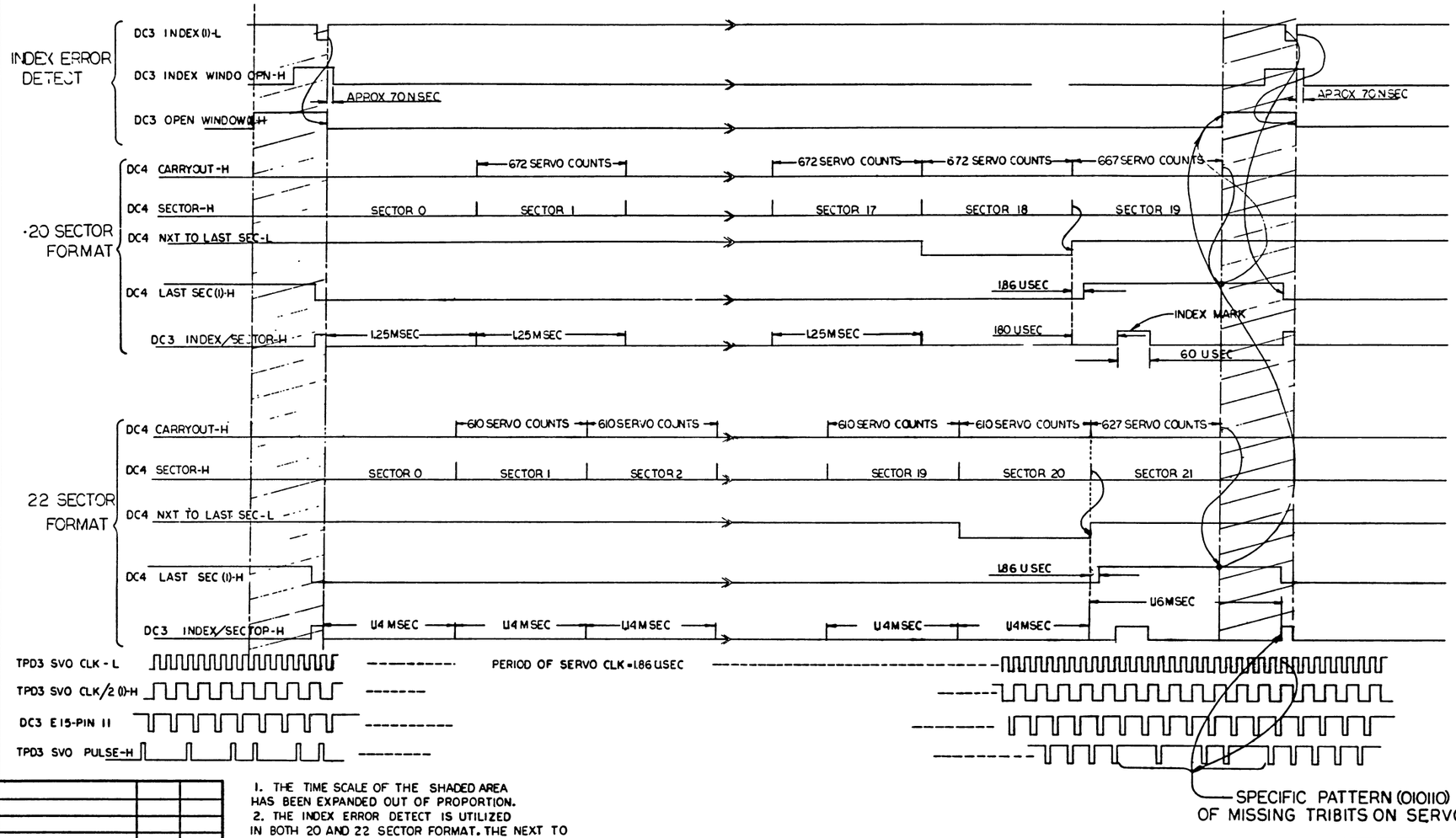
## NOTES:




| IC TYPE | GND | +5V |
|---|---|---|
| GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE | | |
| IC PIN LOCATIONS | | |

1. THE TIME SCALE OF THE SHADED AREA HAS BEEN EXPANDED OUT OF PROPORTION.
2. THE INDEX ERROR DETECT IS UTILIZED IN BOTH 20 AND 22 SECTOR FORMAT. THE NEXT TO LAST SECTOR PRELOAD ADJUSTS THE CARRYOUT AT THE END OF THE LAST SECTOR SUCH THAT OPEN WINDOW IS IN THE SAME PLACE REGARDLESS OF THE FORMAT.
3. SECTOR PULSE Ø IS 3.72 USEC WIDE. ALL OTHER SECTOR PULSES ARE 1.86 USEC WIDE.

| REV. | CHANGE NO. | REVISIONS | DATE | APPROVED |
|---|---|---|---|---|
| A | RK06-00005 | RELEASED | 3-24-77 | R. CASTELLANOS |

| FIRST USED ON OPTION MODEL | QTY | REF. DESIGNATION | DESCRIPTION | PART NO. | ITEM NO. |
|---|---|---|---|---|---|
| RKØ6 | | | PARTS LIST | | |
| | ETCH BOARD REV. | | | | |

| DEC NO. | EIA NO. | DEC NO. | EIA NO. |
|---|---|---|---|
| | | | |

SEMICONDUCTOR CONVERSION CHART

| | | |
|---|---|---|
| DRWN | R.Wolff | DATE 3 Sept 76 |
| CHK'D | R.Wolff | DATE 3 Sept 76 |
| ENG. | R.Wolff | DATE 3 Sept 76 |
| PROD ENG. | R.Cormier | DATE 3 Sept 76 |
| PROD | Ted Anderson | DATE 9/14/76 |

NEXT HIGHER ASSY: B-DD-RKØ6-Ø

SCALE: —

SHEET 1 OF 1

digital

TITLE: SECTOR COUNTER TIMING

SIZE D | CODE TD | NUMBER RKØ6-Ø-8 | REV. A

SHT.

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HL HOME L
OCP RUN SW L
DCI HOME H
DCI INTERLOCK H
DCI RUN(1) H
SAI SVO UNS (1) L
DCI SPINDLE ON L
DCI RUN(1) L
DCI RUN(Ø) L
DCI RUN(Ø) H
DC5-PWRUP-L
M4 BRUSH HOME SW H
M4 BRUSH HOME SW L
DCI RUN SW & HOME L
DCI CHANGE RUN SW L
DC5 CLOCK BRUSHES
DC5-CLOCK BRUSHES H
DCI LED
"BRUSHES"
DCI EN BRUSHES L
DCI BRUSHES(1) L
DC5 STOP SENSE(Ø) L
DCI SET HOL(1) L
BUFF 1(1) H
TIØ H
TG H
DC5 PWR UP L
DCI START SPINDLE L
LL LID LOCKED L
CP CART PRES L
DCI UD LOCKED H
DCI INTERLOCK H
DCI CART PRES H
DC5 PWR UP L
DC5 DC LOW B L
DCI UNLD HDS(1) L
DCI UNLD HDS(1) H
DCI UNLD HDS LE(1) L
DCI UNLD HDS(Ø) L
DCI UNLD HDS(Ø) H
D2 LED "UNLD HDS"
TOTALLY DISABLED
E56-PIN7
E61-4

* FOR SINGLE PORT RKØ6'S USE THE I&T PREFIX AS A SOURCE DESIGNATOR.
FOR DUAL PORT RKØ6'S USE THE DP PREFIX AS A SOURCE DESIGNATOR.

| REVISIONS | | | |
|---|---|---|---|
| ECN | CHANGE NO. | REV. | |
| 82 | M7705-00001 | D | P. CASTELLANOS |
| | M7705-00002 | E | R. WOLFF |
| | M7705-00003 | F | R. WOLFF |
| | M7705-00004 | H | M. CASTELLANOS |
| | M7705-00005 | J | R. LAWSON 2-2-77 |
| | M7705-00006 | K | M. CASTELLANOS |
| | M7705-00007 | L | P. CASTELLANOS |
| | M7705-00009 | M | M. CASTELLANOS |
| | M7705-ML011 | N | M. CASTELLANOS |
| | M7705-ML013 | P | P. CASTELLANOS |
| | M7705-ML014 | R | M. CASTELLANOS |
| | M7705-ML016 | S | B. JOHNSON |

| | | |
|---|---|---|
| DRN | Charlie Case | 2/9/76 |
| CHK'D | | |
| ENG | | |
| PROJ. ENG | | |
| PROD | | |
| NEXT HIGHER ASSY. | | |
| D-UA-M7705-Ø-Ø | | |
| SCALE | | |
| SHEET 1 OF 6 | | |

FIRST USED ON: RKØ6

digital

TITLE: DRIVE CONTROL LOGIC (DCI)

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | CS | M7705-Ø-1 | S |

DIST.

2 ML2

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R/W1 SET MULT HD L — BD2

+V2

DC2 SECTOR ERR(1) H

DC6 INP WR GATE H

DC2 SECTOR ERR (1) L

DC3 SECTOR L

7474 E8

DC5 PWR UP + CLR ER L

R/W1 SET HEAD FAULT L — BE1

TPD3 SET SVO ERR L — AS1

DC2 SVO ERR (1) H

DC2 SVO ERR (1) L

7474 E8

R/W1 SET NO TRANS L — AV2

DC3 SET TRIBIT ERR L

DC2 TRIBIT ERR (1) H

DC2 TRIBIT ERR (1) L

7474 E2

R/W1 SET CURR FAULT L — AU2

DC3 SET INDEX ERR L

DC2 INDEX ERR (1) H

DC2 INDEX ERR (1) L

7474 E2

DC2 MULT HD (1) H

DC2 MULT HD (1) L

7474 E19

DC2 HD FAULT (1) H

DC2 HD FAULT (1) L

7474 E19

DC2 NO TRANS (1) H

DC2 NO TRANS (1) L

7474 E13

DC2 CURR FAULT (1) H

DC2 CURR FAULT (1) L

7474 E13

* (I&T3) (DP4) STROBE MUX 1 L — AD2

74150 E7

+5V

DC6 SK≠ NO MOTN (1) H

DC6 LM DT ON SK (1) H

SAI SVO UNSAFE (1) H — AJ2

* (I&T3) (DP4) MES B PAR (1) H — AM1

* (I&T4) (DP4) CLK CTR 3 H — AF1

* (I&T4) (DP4) CLK CTR 2 H — AD1

* (I&T4) (DP4) CLK CTR 1 H — AE1

* (I&T4) (DP4) CLK CTR Ø H — AK1

1Ø ALI — DC2 MUX B1 L

SC2 OFFSET COMM L — CM2

SC2 OFFSET C1 (1) L — CM1

SA3 LIM L — CE1

3C4 MOVE L — CC1

7408 E49

7400 E44

C72 .47 µF

R2Ø 19.6K 1%

74123 E47 3M5

7410 E50

DC1 UNLD HDS (1) L

SA3 BET LIM (1) H — DN1

7404 E55

+V2

7474 E43

CJ2 DC2 SETTLING (1) L

CN2,CP2 DC2 READY (1) H

DC2 READY (Ø) H

HL HOME L

7408 E49

CP1 DC2 AP H

* FOR SINGLE PORT RKØ6'S USE THE I&T PREFIX AS A SOURCE DESIGNATOR.
FOR DUAL PORT RKØ6'S USE THE DP PREFIX AS A SOURCE DESIGNATOR.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| DRIVE CONTROL LOGIC (DC2) | D | DCS | M7705-Ø-1 | S |
| SCALE — | SHEET 2 OF 6 | DIST. | | |

DEC FORM NO. SMD 128

2 ML2

M7705-Ø-1 S1

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TPD3 SVO CLK H
TPD3 SVO CLK/2(1)H
TPD3 SVO PRES DEL H
AP2
AN2
AK2
7420 E9
DC3 SET TEIBIT ERR L

7416 E5
7427 E4
7420 E3
7427 E4
TPD3 SVO CLK L
BC1

+V3
7474 E11 INDEX
DC3 INDEX (1) H
DC3 INDEX (1) L
BR1
+V2

TPD1 SVO PULS H
BE2
7404 E9
7474 E15
HL HOME L
DU2
DS0 IN
CLR CLK

7402 E2Ø
DC3 BUFF INDEX L

DC4 SECTOR H
DC4 INDEX MARK H
AH2
7427 E4
7402 E1Ø
DC3 INDEX/SECTOR H
BF2

DC3 2Ø SECT (1) H
DC3 2Ø SECT DEL(1)H
7486 E12
DC4 NXT TO LAST SEC L

+V2
7474 E22
DC4 SECTOR H
DC4 BUFF SVO CLK L
7474 EGØ
ANI
DC3 LAST SECTOR(1)H
DC3 LAST SECTOR(1) L
DC3 LAST SECTOR(Ø) H

7416 E18
7420 E12
DC3 INDEX WNDO OPN H

+V2
DS0 IN
CLR CLK
DC3 INDEX MISSING H
DC3 OPEN WINDOW(1)H
DC4 BUFF SVO CLK L

DC3 SECTOR L
DC3 LAST SECTOR(1) H
DC4 CARRY OUT H
7474 E22
7474 E25
BAI
DC3 OPEN WINDOW(1)H

DC4 SECTOR H
7404 E9

AS2
DC3 2Ø SECT (1) H
DC3 2Ø SECT DEL (1) L
DC3 2Ø SECT DEL (1) H

*(I&T1 DP4) BUFF 1 (1) H
*(I&T1 DP1) T9 L
CU1
AH1
7474 E11
7474 E17
7474 E17
+V3
DC4 INDEX MARK H
7404 E55
DC3 INDEX (1) L

DC3 BUFF INDEX L
DC3 ACT 2Ø SECT (1) H

DC3 INDEX WNDO OPN H
DC3 INDEX (1) L
DC3 INDEX MISSING H
TPD3 SVO PRES DEL L
AE2
DC3 GRTEST 2
AJ1
7402 E1Ø
7404 E9
7486 E12
7402 E1Ø
7404 E9
DC3 SET INDEX ERR L

* FOR SINGLE PORT RKØ6'S USE THE I&T PREFIX AS A SOURCE DESIGNATOR.
FOR DUAL PORT RKØ6'S USE THE DP PREFIX AS A SOURCE DESIGNATOR.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|---|
| DRIVE CONTROL LOGIC | (DC3) | D | DCS | M7705-Ø-1 | S |
| SCALE | SHEET 3 OF 6 | DIST. | | | |

DEC FORM NO. 1388 1288

ML2

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*(I&T 2)MULT DR(1) H
DP4
DC2 CYER FAULT (1) L
DC2 NO TRANS(1) L
DC2 HD FAULT (1) L
DC2 MULT HD (1) L
DC2 INDEX ERR(1) L
DC2 TRIBIT ERR(1) L
DC2 SYO ERR(1) L
DC2 SECTOR ERR(1) L
DC1 HOME H
DC5 PWR UP + CLR ERR H
BMZ
7430 E1
7462 E26
7400 E33
7474 E32
CS2
DC4 R/W UNS (1) H
DC4 R/W UNS (0) H
DC5 PWR UP L
CK1
DC4 HOME & CLR ERR L

DC6 INP WE GATE H
DC5 WEL (1) H
CT2
7400 E34
CL2
DC4 WEL ERR (1) H
DC5 BUFF CLR ERR L
DC5 PWR UP L

+V2
+5V
R30
1K
DC4 GR TEST 1
AT2
TPD3 SYO CLK H
AP2
7404 E9
DC4 SECTOR H
DC3 INDEX(1) L
BZ1
7416I E14
CLR
LD
CLK
CNTEN
CEYEN
AU1
AM2
AL2
AE2
DC4 SECT CT0 H
DC4 SECT CT1 H
DC4 SECT CT2 H
DC4 SECT CT3 H
7404 E35
7408 E42
DC4 SECT CT2 H
7400 E34
7408 E28
DC4 NXT TO LAST SEC L
DC4 SECT CT1 H
DC3 ACT 20 SECT (1) H
7410 E16
AC1
DC4 SECT CT4 (1) H
7474 E15
DC4 BUFF SYO CLK L

DC3 2Φ SECT DEL (1) L
DC4 NXT TO LAST SEC L
DC3 2Φ SECT DEL (1) L
7408 E28
DC3 2Φ SECT DEL (1) H
DC4 NXT TO LAST SEC L
DC3 2Φ SECT DEL (1) L
7400 E34
DC4 SECTOR H
DC3 INDEX(1) H
7402 E26
7416I E29
7416I E30
DC4 BIT 16
7416I E23
DC3 LAST SECTOR (1) H
DC3 LAST SECTOR(Φ) H
7408 E28
DC4 CARRY OUT H
DC4 SECTOR H
TPD3 SYO CLK L
BC1

7416I E24
B7(1)
B6(1)
B5(1)
B4(1)
B3(1)
B2(1)
B1(1)
B0(1)
DS0 IN
CLK CLR
7404 E55
DC4 INDEX MARK L
7486 E12
AH2
DC4 INDEX MARK H

* FOR SINGLE PORT RK06'S USE THE I&T PREFIX AS A SOURCE DESIGNATOR.
FOR DUAL PORT RK06'S USE THE DP PREFIX AS A SOURCE DESIGNATOR.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| DRIVE CONTROL LOGIC (DC4) | D | CS | M7705-0-1 | S |
| SCALE | SHEET 4 OF 6 | DIST. | | |

DEC FORM NO. DRD 128

2 ML2

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PS3 DC LOW L
DN2
C81 .01μf
DC LOW B L
R10 1K
7414 E56
7414 E56
+5V
R13 46.4K 1%
C68 68μf
74123 E23 1SHOT PWR UP
DMI
DC5 PWR UP L
7437 E41
DC5 PWR UP + CLR ER H
DC5 PWR UP + CLR ER L
7437 E41
7437 E41
7437 E41
7404 E35
DC5 BUFF CLR ERR L
DC5 CLR ERR H
*(I&T) (DP3) CLR ERR L
CH1
+V2
DC1 UNLD HDS (0) H
TPD3 SVO PRES DEL L
DD1
AJ1
75452 EG1
DT2
DC5 HOME LOCK RELEASE L
BB2
DC5 LED CATHODE
R4 180
DC1 RUN SW HOME L
DC1 START SPINDLE L
7408 E39
DC5 HOME +STOP
DC5 SPEED OS (1) H
7408 E49
SX SPINDLE SPEED
CE2
C71 510PF
R5 10K
7414 E51
NOT USED
NOT USED
DC1 START SPINDLE L
DC5 HOME +STOP
DC1 RUN SW HOME L
7474 E40
E39 7408
E39 7408
+5V
R6 46.4K 1%
CG9 150μf
D4 D472
DC5 STOP SENSE (0) L
74123 E27 2 SEC
7474 E21 STOPPED
DC1 HOME H
DA1
+V2
7410 E1G
DC1 BRUSHES (0) L
OCP RUN SW L
DC5 STOPPED (1) L
7404 E35
*(I&T) (DP4) INP WE GATE L
DJ2
75452 EG3
DL1
DC5 LID LOCKED SOL L
CD2
DC5 STOPPED LITE H
DC1 RUN (0) H
75452 EG3
DJ1
DC5 SPINDLE BRAKE L
+5V
E25 43K
74123 EG 250MS
+V2
CA2
7410 E57
CT2
DS1
DC5 WEL (1) H
DC5 WEL (1) L
7474 EG6 WEL
7408 EG5
CF1
DC5 CHANGE WELL
+5V
R11 330
R12 750
+V2
C79 .01μf
+5V
R28 330
R29 750
+V3
C90 .01μf
+5V
E24 43K
74123 EG 250MS
+V2
+5V
R17 10K
NOTE R17 NOT FIELD ADJUSTABLE
R16 34.8K
DC5 GR TEST3
CK2
+5V
R31 1K
C76 .22μf
74123 E36 24MS
DC5 SPEED OS (1) H
7493 E48
R3(1)
R2(1)
R1(1)
R0(1)
CLR
CLK0 CLK0C
OCP WR PROT SW L
BV1
+5V
E3 2K
C80 .01μf
7414 E51
7408 E42
DS2
DC5 SPEED OK H
D3 LED
"SPEED OK"
DC5 SET AC LOW ERR L
DC5 CLOCK BRUSHES H
PS3 AC LOW L
DH2
+5V
E15 1K
7414 E56
7400 E33
DC4 SECTOR H
7404 E35
7408 E42
7474 EG0 SPEED LOSS
BP1
DC5 SPEED LOSS (1) H
TPD3 SVO PRES DEL H
DC5 PWR UP + CLR ER L
AK2
+5V
AA2, BA2, CA2, DA2
C75 — C78 8 μf
C1 — C66 .01 μf
AC2, BC2, CC2, DC2
AT1, BT1, CT1, DT1

* FOR SINGLE PORT RK06'S USE THE I&T PREFIX AS THE SOURCE DESIGNATOR.
FOR DUAL PORT RK06'S USE THE DP PREFIX AS THE SOURCE DESIGNATOR.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| DRIVE CONTROL LOGIC (DC5) | D | DCS | M7705-0-1 | S |
| SCALE — | SHEET 5 OF 6 | DIST. | | |

DEC FORM NO. DSD 1.33

8 7 6 5 4 3 2 ML2 1

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DC6 NXF (1) L
BR2
*(I&T4 DP4) PAR ERR(1)L
DC6 DR OFF TRK(1) L
DC4 E/W UNS (1) L
DC6 SEEK INC(1)L
DN2
PS3 DC LOW ERR (1) L
DC6 AC LOW ERR (1) L
DC5 SPEED LOSS(1)H
DC4 WRL ERR(1) H
7430 E31
FAULT-H
7408 E39
BS2
DC6 BUFF FAULT - H
7402 E20

DC2 READY(Ø)H
7400 E44
7408 E49
7404 E35
DC6 INP WR GATE H
DC2 READY(1) H
7410 E50
DF1
TPD1 FINE TRK DLD L

*(I&T2 DP4) INP WR GATE L
CA1
SC1 INP SEEK COMM L
CB1
*(I&T4 DP4) VOL VAL(Ø) H
CD1
7400 E33
7404 E33
DC5 SET AC LOW ERR L
CV2
DC6 NXF(1) H
DC6 NXF(1)L
7474 E38 ILF
CT1
DC6 AC LOW ERR(1) H
DC6 AC LOW ERR(1) L
7474 E37 AC LOW ERR
CF2
CL1
DC6 DR OFF TRK(1) H
DC6 DR OFF TRK(1) L
7474 E43 DR OFF TRACK

DC5 BUFF CLR ERR L
DC5 PWR UP L
SA3 ONE TRK(Ø)L
BL2
7404 E56

+5V
E22 4.64K 1%
C73 .68 µf
+V2
SC4 MOVE H
DC1 UNLD HDS (Ø) L
BP2
7423 E47 10MS Ø
7474 E40
DC6 SK NO MOTN (1) H
DC6 SK NO MOTN (1) L
SC1 (L+UL+ET2) L
BT2
7474 E25
DC6 LM OT ON SK (1) H
DC6 LM OT ON SK (1) L
SA3 LIM H
BU2
SA1 SVO UNS(1) L
7420 E45
BU1
DL6 SEEK INC H
7404 E55
DC6 SEEK INC L
+V2
SC2 BAD ADDR H
CE1
BS1
DC6 INV ADDR(1) H
7474 E37 INV ADDR
I&T4 T15H
CE2
DC2 SETTLING (1) L
CJ2
TPD3 SYDPRES DEL H
AK2
7408 E45

DC5 PWR UP + CLR ERR L
SC1 SK COMM (1) H
SC4 T15PEXT (1) H
SC2 DIFF CTR=0 H
DC1 UNLD HDS LE(1) L
DE1
DC1
DB1
DC2 SETTING(1)L
7420 E45
7430 E46
BK2
DC6 SET DSC H
SC2 READ Ø TRK(1) L
CS1
+V2

OCP QUAL L
CN1
DC4 SECTOR H
C82 .01µf
SA3 BET LIM(1) L
DK1
+5V
E21 1K
7400 E44
DC5 PWR UP L
7410 E50
7404 E55
DK2
DC6 CLR VOL VAL L

DC2 SETTLING(1) L
CJ2
+5V
R18 43K
74123 E27 150 NS
+5V
E27 43K
74123 E53 250NS
+V2
DC6 FAULT H
BS2
7404 E35
CB2
DC6 FAULT L

* FOR SINGLE PORT RKØ6'S USE THE I&T PREFIX AS THE SOURCE DESIGNATOR.
FOR DUAL PORT RKØ6'S USE THE DP PREFIX AS THE SOURCE DESIGNATOR.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| DRIVE CONTROL LOGIC (DC6) | D | CS | M7705-Ø-1 | 3 |
| SCALE — | SHEET 6 OF 6 | DIST. | | |

DEC FORM NO. DRD 130

ML2

AUTOMATED BY PRTLST.1D(5) — P A R T S  L I S T — SHEET A1 OF A2

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-M7705-0-1 | | | DRIVE CONTROL LOGIC (C.S.) | REF | |
| 2 | 2 | D-UA-M7705-0-0 | | | DRIVE CONTROL LOGIC | REF | |
| 3 | 3 | B-MH-M7705-0-6 | | | MODULE ECO HISTORY | REF | |
| 4 | 4 | | 5011260-00 | | M7705 | 1 | |
| 5 | 5 | | 1001610-00 | | .01 MFD 50V +80-20% 25U CER | 78 | C1-C66,C79-C90 |
| 6 | 6 | | 1010031-03 | | .22 MFD 50V 10% M.POLYCARB | 1 | C70 |
| 7 | 7 | | 1005965-00 | | .47 MFD 35V 10% S.TANT | 1 | C72 |
| 8 | 8 | | 1005306-00 | | 6.8MFD 35V 10% S.TANT | 1 | C68 |
| 9 | 9 | | 1012084-01 | | 8 MFD 25V +75-10% AL EL | 4 | C75-C78 |
| 10 | 10 | | 1112689-00 | | LED .8MCD@16MA VF=5V | 3 | D1-D3 |
| 11 | 11 | | 1300479-00 | | 10.0 K .25 W 5.0 % CC | 1 | R5 |
| 12 | 12 | | 1301322-00 | | 180.0 .25 W 5.0 % CC | 1 | R4 |
| 13 | 13 | | 1300295-00 | | 330.0 .25 W 5.0 % CC | 2 | R11,R28 |
| 14 | 14 | | 1300365-00 | | 1.0 K .25 W 5.0 % CC | 8 | R1,R8,R9,R10,R15,R21,R30,R31 |
| 15 | 15 | | 1301401-00 | | 750.0 .25 W 5.0 % CC | 2 | R12,R29 |
| 16 | 16 | | 1304838-00 | | 43.0 K .25 W 5.0 % CC | 8 | R7,R14,R19,R18,R24-R27 |
| 17 | 17 | | 1303311-00 | | 46.40 K .25 W 1.0 % RN55D-F10 | 3 | R6,R13,R22 |
| 18 | 18 | | 1309143-10 | | 10.0 K .75 W10.0 % POT | 1 | R17 |
| 19 | 19 | | 1303155-00 | | 34.80 K .25 W 1.0 % RN55D-F10 | 1 | R16 |
| 20 | 20 | | 1309419-00 | | 19.60 K .25 W 1.0 % RN55D-F10 | 1 | R20 |
| 21 | 21 | | 1302388-00 | | 2.0 K .25 W 5.0 % CC | 2 | R2,R3 |
| 22 | 22 | | 1905547-00 | | 7474 FF-D DUAL,EDGE TRIGG | 18 | E2,E8,E11,E13,E15,E17,E19,E21, |
| | | | | | | CONT | E22,E25,E32,E37,E38,E40,E43,E52, |
| | | | | | | CONT | E60,E66 |
| 23 | 23 | | 1905575-00 | | 7400 NAND GATE-QUAD 2IN | 4 | E33,E34,E44,E58 |
| 24 | 24 | | 1905576-00 | | 7410 NAND GATE-TRIPLE 3IN | 3 | E16,E50,E57 |
| 25 | 25 | | 1905577-00 | | 7420 NAND GATE-DUAL 4INPU | 3 | E3,E45,E64 |
| 26 | 26 | | 1905578-00 | | 7430 NAND GATE-SINGLE 8IN | 4 | E1,E31,E46,E54 |
| 27 | 27 | | 1909004-00 | DEC | 7402 NOR GATE-QUAD 2IN | 2 | E10,E20 |
| 28 | 28 | | 1909054-00 | | 7493 COUNTER,ASYNCH UP,BI | 1 | E48 |

| REVISION HISTORY | | |
|---|---|---|
| ENG | ECO NUMBER | REV |
| W.H | 00909 | M |
| M.C | M7705-ML011 | N |
| MC | M7705-ML013 | P |
| MC | M7705-ML014 | R |

BASIC PART NO: M7705

SECTION A OF A

SECTION.VARIATION INDEX

[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: L. METZGER — DATE: 17-JAN-78

CHK'D: H. DARAKJIAN — DATE: 17-JAN-78

DES.ENG: R. LAWSON — DATE: 17-JAN-78

RESP.ENG.: R. LAWSON — DATE: 17-JAN-78

MFG.ENG.: C. POWELL — DATE: 17-JAN-78

ASSEMBLY NUMBER: D-UA-M7705-0-0

TOP DOCUMENT NUMBER: #B-DD-M7705-0

| D | I | G | I | T | A | L |
|---|---|---|---|---|---|---|

TITLE: PARTS LIST

DRIVE CONTROL LOGIC

DOCUMENT NUMBER

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| K | PL | M7705-0-DBP | R |

FILE NAME: Z1484R.PLS

EDIT #: 16

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AUTOMATED BY FRTLST.1D(5) P A R T S L I S T SHEET A2 OF A2

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 29 | 29 | | 1909686-00 | 7404 INVERTER GATE-HEX 1I | 3 | E9,E35,E55 |
| 30 | 30 | | 1910041-00 | DEC 74164 SHIFT REG.,8BIT SERI | 3 | E5,E18,E24 |
| 31 | 31 | | 1910153-00 | DEC 74150 MUX 1 OF 16 | 1 | E7 |
| 32 | 32 | | 1910155-00 | DEC 7408 AND GATE,POS.QUAD 2I | 5 | E28,E42,E49,E53,E39 |
| 33 | 33 | | 1910091-00 | DEC 7437 AND GATE-QUAD 2IN,BU | 1 | E41 |
| 34 | 34 | | 1910545-00 | 75452 DRIVER,PERIPH,DUAL, | 3 | E61,E62,E63 |
| 35 | 35 | | 1910011-00 | DEC 7486 X-OR GATE-QUAD 2INPU | 1 | E12 |
| 36 | 36 | | 1910436-00 | DEC 74123 ONE SHOT-DUAL,RETRIG | 7 | E6,E26,E27,E36,E47,E53,E59 |
| 37 | 37 | | 1910650-00 | 74161 COUNTER,SYNCHR. UP | 4 | E14,E23,E29,E30 |
| 38 | 38 | | 1910878-00 | 7427 NOR GATE-TRIPLE 3IN | 1 | E4 |
| 39 | 39 | | 1911324-00 | 7414 INVERTER,HEX 1IN SCH | 2 | E51,E56 |
| 40 | 40 | | 9000024-01 | EYELET, ROLLED FLANGE, .121 OD X | 8 | |
| 41 | 41 | | 1213113-01 | HANDLE,MODULE, | 1 | |
| 42 | 42 | | 1009964-00 | .68 MFD 35V 10% S.TANT | 1 | C73 |
| 43 | 43 | | 9105740-55 | WIRE(WRAP)30AWG UL1423 | A/R | |
| 44 | 44 | | 1105275-00 | D 672 TR= 15NS PIV= 60V SI | 1 | D4 |
| 45 | 45 | | 1005572-00 | 150 MFD 6V 20% S.TANT | 1 | C69 |
| 46 | 46 | | 1002476-00 | 510.0 MMF 100V 5%200PPM MICA | 1 | C71 |
| 47 | 47 | | 9107256-00 | TUBING,THIN WALL,.027ID UL | A/R | |
| 48 | 48 | D-MD-5011261-0-0 | | DRILL AND ETCH DRAWING | REF | |
| 49 | 49 | D-EC-5011261-0-0 | | ETCH CUT DRAWING | REF | |

SD NOTE: ITEM #39: USE ONLY FAIRCHILD AND T.I. PARTS.

| D | I | G | I | T | A | L | TITLE | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DRIVE CONTROL LOGIC | K | PL | M7705-0-DBP | R |
| | | | | | | | SECTION A OF A | | | | |

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COMPONENT SIDE VIEW

## REWORK INSTRUCTIONS:

ECO # 5

ETCH CUT SIDE 1:

5-1 CUT BETWEEN E34-4 & E34-23 (PRIOR TO INSTALLATION OF E34)

HOLE ADDS

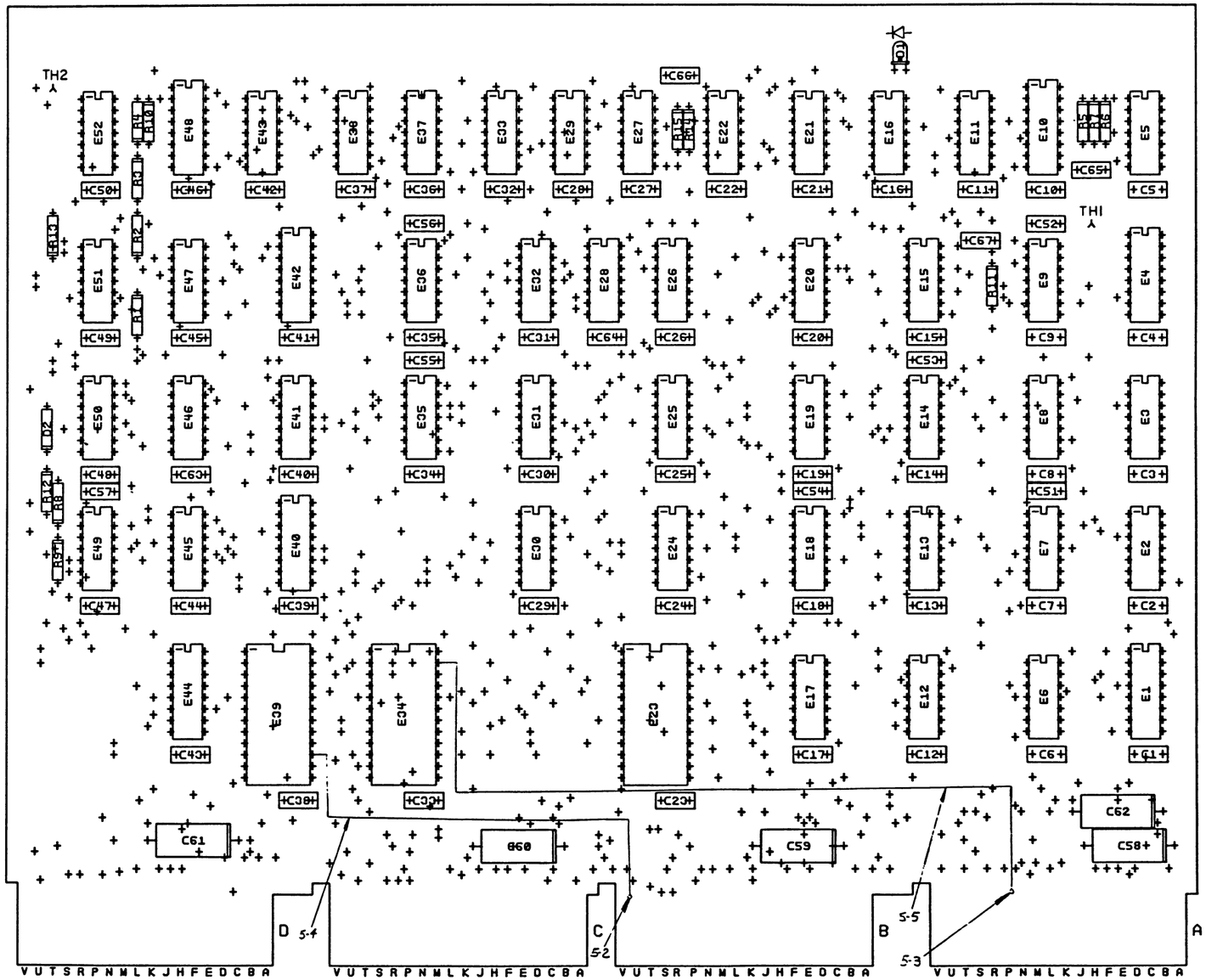
5-2 ADD HOLE AT LOCATION BU-BV AS SHOWN
HAND DRILL #60 (.040 DIA) HOLE.

5-3 ADD HOLE AT LOCATION AN-AP AS SHOWN
HAND DRILL #60 (.040 DIA) HOLE.

WIRE ADDS SIDE 1:

5-4 ADD WIRE AT E39-15 TO BT2 (THROUGH HOLE BETWEEN BU AND BV)

5-5 ADD WIRE AT E34-23 TO AM2 (THROUGH HOLE BETWEEN AN AND AM)




NOTES: 1. DO NOT INSTALL E38.

| CHK | CHANGE NO | REV |
|---|---|---|
| RLB | M7706-00004 | F |
| RLB | M7706-00005 | G |
| RLB | M7706-00006 | H |

HOLE DATA

| SYMBOL | + | ^ | X | ◇ | ⧄ | ⊞ | △ | □ | ◇ | ⊠ |
|---|---|---|---|---|---|---|---|---|---|---|
| FIN HOLE SIZE | .038 | .156 | | | | | | | | |
| PLATED | ✓ | ✓ | | | | | | | | |
| NON PLATED | | | | | | | | | | |
| QTY. | 1712 | 2 | | | | | | | | |
| ○-OFF GRD HLE | | | | | | | | | | |
| | | | | | | | | | | |
| DRILL SIZE | | | | | | | | | | |

BOARD FABRICATION INFORMATION

| | |
|---|---|
| PANEL SIZE | QUAD 8.54 x 11.75 |
| PANEL DATA DWG.# | D-MD-7706358.9-0-0 |
| PANEL MAT'L | .052 THK |
| QTY. OF LAYERS | 2 |
| COPPER THICKNESS | 1 OZ |
| PTH. / PRINT AND ETCH | NO |
| MODULE INSERTED 100 TIMES OR MORE? | NO |

| SIGNATURES | DATE |
|---|---|
| DRN. | 3/28/77 |
| CHK'D. | 3-31-77 |
| ENG. | 4-4-77 |
| PROJ.ENG. | 4-4-77 |
| PROD. | |

digital

TITLE DRILL AND ETCH DRAWING

SCALE 2/1 | SIZE D | CODE AH | NUMBER M7706-0-5 | REV H

SHT. 1 OF 4 | NEXT HIGHER ASSY. | ETCH REV. D

MS#

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I&T4 OUT ENA (1) H
PS DC LOW L
I&T3 TR MESS A (1) H
75113 E4
BE2
I/O MESSAGE LINE A SIG
BJ2
AK2
75107 E9
+V1
I&T1 CP H
7404 E13
CD1 I&T1 BUFF 1 (1) H
DJ1 I&T1 BUFF 2 (1) H
DM1 I&T1 BUFF 3 (1) H
+V2
I&T1 CP X L
OCP U2 L
DN1
OCP U1 L
DJ2
OCP U0 L
DN2
+5V
E1 1K
E2 1K
E3 1K
7486 E51
I&T4 T3 H
7400 E41
7423 E5
DS2 I&T1 RELEASE COMM L
I&T1 QUAL H
I&T1 STROBE L
7420 E21
CJ1 I&T1 SET DR SEL L
CU1 I&T1 DR SEL (1) H
I&T1 DR SEL (1) L
7474 E33
"DR" "SEL"
D1 LED
I&T4 T2 L
I&T1 SACK (1) H
I&T4 T4 H
7408 E19
I&T4 IN EN (1) H
I/O MESSAGE LINE B SIG
BK1
AR1
6 BS1 I&T1 STAT ADD (1) H
I&T1 STAT ADD (2) H
7474 E11
7474 E22
DP TEST L
DA1
RI3 1K
7486 E51
R5 14.7K 1%
74123 E10 100NS
I&T1 SHORT CP (1) H
I&T1 SHORT CP (1) L
BA1
CU1
1UØH
I&T3 TR MESS B (1) H
PS DC LOW L
I&T4 OUT EN (1) H
I&T1 DR SEL (1) H
7408 E2G
I/O CONTROL CLOCK SIG
BN2
BM2
BR2
7404 E19
AA1 I&T1 CO H
I&T1 CP L
DCG CLE VOL VAL L
BR1
7438 E17
I&T2 INIT L
7408 E4G
R14 330
R15 750
C66 .014F
R6 33Ø
R7 75Ø
.65 .01UF
I&T2 CTD H
I/O STROBE SIG
AD2
BH2
7404 E13
AP2 I&T1 STROBE H
I&T1 STROBE L
OCP QUAL L
CB2
7404 E52
I&T4 CP OUT H
OCP SW EN_ L
AN1
R11 1K
C67 .01
7414 E3Ø
I/O CTRLR PWR L
DV2
D2
R12 1K
R8 2K
R9 68Ø
7408 E15
I&T1 INT ENA L
+5V AA2 BA2, CA2, DA2
C1 THRU C5Ø .01µf
C58 THRU CG1 8µf
AT1, BT1, CT1, DT1 AC2, BC2, CC2, DC2
C51 THRU C57 .01µf
C62 8µf
-5V AL1

| REVISIONS | | | REV |
|---|---|---|---|
| CHK | CHANGE NO | | |
| DP | M77XX-03301 | M. Bonnell 20-JUL-76 | C |
| | | P CASTELLANOS | |
| GAT | M7706-00002 | I. Jones 10 APR 77 | D |
| | | M CASTELLANOS | |
| GS2 | M7706-00003 | M. Hamblen 22-JUN-77 | E |
| | | M CASTELLANOS | |
| | M7706-00004 | P CASTELLANOS | F |
| | M7706-00005 | M. Hamblen 5 OCT 77 | H |
| | | M CASTELLANOS | |

| | | |
|---|---|---|
| DRN | Ron Metcalf | 11/20/75 |
| CHK | D | 26 NOV 75 |
| ENG | | 23 MAR 76 |
| PROJ ENG | | 23 MAR 76 |
| PROD SE | | MAY 76 |
| NEXT HIGHER ASSY | | |
| SCALE | | |
| SHEET 1 OF 4 | | |

FIRST USED ON RKØ6

digital

TITLE INTERFACE & TIMING (I&T1)

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | CS | M7706-Ø-1 | H |

DIST

FORM NO BMD 102 0

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I&T1 SACK (1) H
+V1
I/O WR GATE SIG
AT2
AU2
7510Ø7 E7
AV2
I&T2 INP WR GATE L
7414 E3Ø
I&T4 VCL VAL (1) H
DC4 R/W UNS(1) H
DCG DR OFF TRK(1) L
DC5 WEL(1) L
BB1
AS1
BT1
7430 E12
BD2
I&T2 WR GATE L
7414 E3Ø
I&T2 WR GATE H
+V1
I&T3 PLD I/SEC (1) H
75113 E44
DU1
DL1
I&T2 POLLED I/S SIG
PS DC LOW L
BB2
I&T1 QUAL H
I&T3 POLL OUT (1) H
74Ø8 E46
I&T4 DSC (1) H
75113 E44
CP1
CN1
-I&T2 ATTN SIG
I&T2 WR GATE H
7510Ø7 E7
AL2
I&T2 WR DATA L
I/O R/W DATA SIG
AH2
AF2
I&T2 INP WR GATE L
DC2 READY(1) H
*(BP-SC4+V1 DP2 DR AVAIL TO(X)-H)
CU2
CB1
7420 E21
7414 E3Ø
75113 E1
I&T1 DR SEL (1) H
PS DC LOW L
R/W2 RD DATA 2 L
R/W2 RD DATA 1 L
BB2
AE2
AF1
+V1
I/O CTD SIG
CP2
CB1
7510Ø7 E36
I&T2 CTD H
7404 E52
I&T2 CTD L
I&T2 BET LIM DL(1) H
I/O I/S SIG
DM2
CT2
7510Ø7 E36
PS DC LOW L
BB2
DC1 HOME-H
I&T1 CP H
BA1
7400 E41
75113 E42
DC3 INDEX/SECTOR H
CV2
7400 E52
+5V
E4 2ØK
74123 12ØNS E48
÷12
+V1
PS DC LOW L
BB2
7474 E43
+V1
7510Ø7 E42
DT2
DU2
I&T2 MDS SIG
BP2
I&T2 MULT DR (1) H
7474 E28
I&T1 DR SEL (1) H
+V1
AK1
SA3 BET LIM(1) L
I&T2 BET LIM DL(1) H
I&T2 BET LIM DL(1) L
I&T1 SACK (1) H
POLL1 SIG
BM1
BL1
7510Ø7 E18
I&T2 POLL 1 L
+V1
POLL2 SIG
AV1
AU1
7510Ø7 E18
I&T2 POLL 2 L
+V1
POLL Ø SIG
CK1
CH1
7510Ø7 E35
I&T2 POLL Ø L
+V1
7510Ø7 E35
I&T1 INT ENH
+V1
I/Ø INIT SIG
DP2
DE2
7510Ø7 E49
I&T2 INIT L
I&T1 SACK (1) H
+V1
PS DC LOW L
BB2
75113 E9Ø
DE2
DF2
I&T2 SACK SIG
I&T1 SACK (1) H
*(BP-SC4+V1 DP2 DR AVAIL TO (X)-H)
CR1
7408 E3
TPD3 WRITE CLK H
DB2
75113 E4Ø
DD2
DD1
I&T2 WR CLO SIG

* FOR SINGLE PORT RK06'S, USE THE BP PREFIX AS THE SOURCE DESIGNATOR.
FOR DUAL PORT RK06'S, USE THE DP PREFIX AS THE SOURCE DESIGNATOR

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| INTERFACE TIMING (I&T2) | D | CS | M77Ø6-Ø-1 | H |
| SCALE | SHEET 2 OF 4 | DIST | | |

DEC FORM NO. LAD 138

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I&T4 DSC (1) H
DC2 PIP H
DC1 RUN(1) H
DC5 WRL (1) H
SC2 OFFSET(.) H
DC3 2Ø SECT (1) H
DC2 REEADY(1) H
CB DRIVE TYPE
I&T4 VOL VAL (1) H
* (EP-SC4+V1 DP 2 DR AVAIL TO(X)-H)
OCP U2 L
OCP U1 L
I&T1 UØ H
I&T4 CLK CTR 3 H
I&T4 CLK CTR 2 H
I&T4 CLK CTR 1 H
I&T4 CLK CTR Ø H
I&T3 BYTE Ø (1) L
I&T3 BYTE 1 (1) L
DC4 R/W UNS(1) H
DCG DR OFF TRK (1) H
DC5 SPEED LOSS (1) H
DC4 WRL ERR(1) H
DC6 SEEK INC (1) H
I&T4 PAR ERR (1) H
DCG NXF (1) H
DCG FAULT H
DCG AC LOW ERR (1) H
DCG INV ADDR (1) H

7415Ø E34 STB
7415Ø E23 STB
7408 E26
7404 E52
7404 E52
7400 E41
7408 E3
7474 E5
7474 E2
7474 E27
7474 E38
7474 E43
7400 E37
7400 E47
7420 E6
7486 E32
7410 E23
7408 E46
74123 E48 25Ø NS
+V1
+V2
+5V
2.Ø 43K

SC3 MUX A3 L
SC3 MUX A2 L
SC3 MUX A1 L
SC3 MUX B3 L
SC3 MUX B2 L
DC2 MUX B1 L
I&T1 SHORT CP (1) H
I&T2 POLL 2 L
I&T2 POLL 1 L
I&T2 POLL Ø L
I&T1 INT EN H
I&T1 CP L
I&T4 OUT EN (1) H
I&T1 STAT ADD (1) H
I&T1 STROBE -L
I&T4 TIA L
C3 INDEX/SECTOR H
I&T3 PLD I/SEC (1) H
I&T3 POLL OUT (1) H

CV1 I&T1 UØ H
CS2 I&T3 U1 H
CM1 I&T3 U2 H
AN2 I&T3 MES A PAR (1) H
AS2 I&T3 MES B PAR (1) H
I&T3 TR MESS A (1) H
I&T3 TR MESS B (1) H
I&T3 BYTE Ø (1) H
I&T3 BYTE Ø (1) L
I&T3 BYTE 1 (1) H
I&T3 BYTE 1 (1) L
I&T3 STROBE MUX 1 L
I&T3 STROBE MUX 2 L
I&T3 STROBE MUX 3 L
(DO NOT INSTALL E38)

* FOR SINGLE PORT RK06'S, USE THE BP PREFIX AS THE SOURCE DESIGNATOR.
FOR DUAL PORT RK06'S, USE THE DP PREFIX AS THE SOURCE DESIGNATOR

REVISIONS
CHK | CHANGE NO | REV

TITLE: INTERFACE TIMING (I&T3)
SIZE: D | CODE: CS | NUMBER: M77Ø6-Ø-1 | REV.: H
SCALE | SHEET 3 OF 4 | DIST

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I&T4 PAR ERR (1) L
DC1 CHANGE PUN SW L
DC5 CHANGE WEL L
(BP-SC4+V1 DP2 DR AVAIL TO(X)-H)
DC6 SET DSC H
(BP GND DP2 DR AVAIL TO(X)-L)
(BP GND DP2 RELEASE (Y)+TIME OUT -L)
I&T1 BUFF 1 (1) H
I&T4 T11 H
DC1 CART PRES H
DC6 CLR VOL VAL L
I&T1 BUFF 1 (1) H
I&T1 SHORT CP (1) H
I&T1 STAT ADD (1) H
I&T4 IN EN (1) H
DC5 PWR UP L
I&T1 BUFF 1 (1) H
I&T4 T8 H
DC1 RUN SW & HOME L
I&T2 INIT L

I&T4 T4 L → I&T4 T4 H
I&T4 T5 L → I&T4 T5 H
I&T4 T6 L → I&T4 T6 H
I&T4 T8 L → I&T4 T8 H
I&T4 T10 L → I&T4 T10 H
I&T4 T11 L → I&T4 T11 H
I&T4 T14 L → I&T4 T14 H
I&T4 T15 L → I&T4 T15 H
I&T4 T3 L → I&T4 T3 H

+V1
I&T4 DSC (1) H
I&T1 STROBE L
I&T4 T15 L
I&T1 DESEL (0) L
I&T4 T15 L
I&T4 IN EN (1) H
I&T4 IN EN (0) L
I&T2 CTO L
I&T1 CP Y L
I&T1 CP H
I&T4 CP OUT-H
I&T4 OUT EN (1) H
I&T4 OUT EN (1) L
I&T4 OUT EN (0) H
I&T2 CTO L
I&T1 CP H
I&T1 SHORT CP (1) L

I&T4 VOL VAL (1) H
I&T4 VOL VAL (1) L
I&T4 VOL VAL (0) H
I&T4 CLR ERR L
I&T4 CLR ERR H
I&T4 PAR ERR (1) H
I&T4 PAR ERR (1) L

7493 E17
74154 E39
I&T4 T15 L
I&T4 T14 L
I&T4 T13 L
I&T4 T12 L
I&T4 T11 L
I&T4 T10 L
I&T4 T9 L
I&T4 T8 L
I&T4 T7 L
I&T4 T6 L
I&T4 T5 L
I&T4 T4 L
I&T4 T3 L
I&T4 T2 L
I&T4 T1 L
I&T4 CLK CTR 3 H
I&T4 CLK CTR 2 H
I&T4 CLK CTR 1 H
I&T4 CLK CTR 0 H
I&T4 COUNT EN L

* FOR SINGLE PORT RK06'S, USE THE BP PREFIX AS A SOURCE DESIGNATOR.
FOR DUAL PORT RK06'S USE THE DP PREFIX AS A SOURCE DESIGNATOR.
(X) REFERS TO THE I&T BOARD IN QUESTION
(Y) REFERS TO THE OTHER PORT
i.e. IF YOUR DEBUGGING I&T BOARD A, X=A, Y=B

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

TITLE: INTERFACE TIMING (I&T4)
SIZE: D | CODE: CS | NUMBER: M7706-0-1 | REV: H
SCALE | SHEET 4 OF 4 | DIST

DEC FORM NO. DRD 138

M7706-0-1 H
DCS M7706-0-1 H

# DIGITAL EQUIPMENT CORPORATION
# PARTS LIST

ETCH REV D

| | | |
|---|---|---|
| MADE BY L. METZGER<br>DATE 10/10/75 | CHECKED H. DARAKJIAN<br>DATE 23 FEB 76 | SECTION |
| ENG R.E. LAWSON<br>DATE 23 MAR 76 | PROD C.E. POWELL<br>DATE 23 MAR 76 | ISSUED SECTION |

| ITEM NO. | DRAWING NO. | PART NO. | DESCRIPTION | QUANTITY / VARIATION | NOTES: / REF DESIGNATION |
|---|---|---|---|---|---|
| | D-UA-M7706-0-0 | | DRILL & ETCH DRAWING | REF | |
| 1 | D-CS-M7706-0-1 | | INTERFACE & TIMING (C.S.) | REF | |
| 2 | D-AH-M7706-0-5 | | ASSY/DRILLING HOLE LAYOUT | REF | |
| 3 | B-MH-M7706-0-6 | | MODULE ECO HISTORY | REF | |
| 4 | | 5011609 | ETCHED CIRCUIT BOARD | 1 | |
| 5 | | 1001610-00 | CAP .01UF 50V CER | 62 | C1 THRU C57, C63 THRU C67 |
| 6 | | 1012084-01 | CAP 8UF 25V 10% | 5 | C58 THRU C62 |
| 7 | | 1112689-00 | DIODE LED | 1 | D1 |
| 8 | | 1105275-00 | DIODE D672 | 1 | D2 |
| 9 | | 1301424-00 | RES 680 1/4W 5% CC | 1 | R9 |
| 10 | | 1300295-00 | RES 330 1/4W 5% CC | 2 | R6, R14 |
| 11 | | 1300365-00 | RES 1K 1/4W 5% CC | 5 | R1, R2, R3, R12, R13 |
| 12 | | 1302941-00 | RES 14.7K 1/4W 1% MF | 1 | R5 |
| 13 | | 1301401-00 | RES 750 1/4W 5% CC | 2 | R7, R15 |
| 14 | | 1304838-00 | RES 43K 1/4W 5% CC | 1 | R10 |
| 15 | | 1302391-00 | RES 20K 1/4W 5% CC | 1 | R4 |
| 16 | | 1302388-00 | RES 2K 1/4W 5% CC | 2 | R8, R11 |
| 17 | | 1905547-00 | IC 7474 | 13 | E2, E5, E8, E11, E16, E20, E22, E24, E27, E28, E31, E33, E43 |
| 18 | | 1905575-00 | IC 7400 | 4 | E25, E37, E41, E47 |
| 19 | | 1905576-00 | IC 7410 | 2 | E29, E50 |

E.C.O. NO. 00001 00002 00003 00004 00005

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| TITLE | ASSY NO. | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|---|
| INTERFACE & TIMING | D-UA-M7706-0-0 | B | PL | M7706-0-0 | H |
| | SHEET 1 OF 2 | INSERTION PARTS LIST DATA BASE REV | | | |

DRB 125

# DIGITAL EQUIPMENT CORPORATION
# PARTS LIST

ETCH REV D

| | | |
|---|---|---|
| MADE BY L. METZGER<br>DATE 10/10/75 | CHECKED H. DARAKJIAN<br>DATE 23 FEB 76 | SECTION |
| ENG R.E. LAWSON<br>DATE 23 MAR 76 | PROD C.E. POWELL<br>DATE 23 MAR 76 | ISSUED SECTION |

| ITEM NO. | DRAWING NO. | PART NO. | DESCRIPTION | QUANTITY / VARIATION | NOTES: REF DESIGNATION |
|---|---|---|---|---|---|
| 20 | | 1905577-00 | IC 7420 | 2 | E6, E21 |
| 21 | | 1905578-00 | IC 7430 | 1 | E12 |
| 22 | | 1909054-00 | IC 7493 | 1 | E17 |
| 23 | | 1909686-00 | IC 7404 | 3 | E13, E45, E52 |
| 24 | | 1909701-00 | IC 74154 | 1 | E39 |
| 25 | | 1910011-00 | IC 7486 | 2 | E32, E51 |
| 26 | | 1910153-00 | IC 74150 | 2 | E23, E34 |
| 27 | | 1910155-00 | IC 7408 | 5 | E3, E15, E19, E26, E46 |
| 28 | | 1910268-00 | IC 75107B | 7 | E7, E9, E14, E18, E35, E36, E49 |
| 29 | | 1910436-00 | IC74123 | 2 | E10, E48 |
| 30 | | 1911341-00 | IC 75113 | 5 | E1, E4, E40, E42, E44 |
| 31 | | 1213113-01 | HANDLE QUAD BOARD | 1 | |
| 32 | | 7413826-1 | HANDLE ASSY QUAD BOARD (RIGHT) | 1 | |
| 33 | | 9000024-01 | EYELET | 8 | |
| 34 | | 9105740-55 | WIRE #30 AWG GRN | A/R | |
| 35 | | 1911324-00 | IC 7414 | 1 | |

E.C.O. NO.

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| TITLE | ASSY NO. | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|---|
| INTERFACE & TIMING | D-UA-M7706-0-0 | B | PL | M7706-0-0 | H |
| | SHEET 2 OF 2 | INSERTION PARTS LIST DATA BASE REV | | | |

DRB 125

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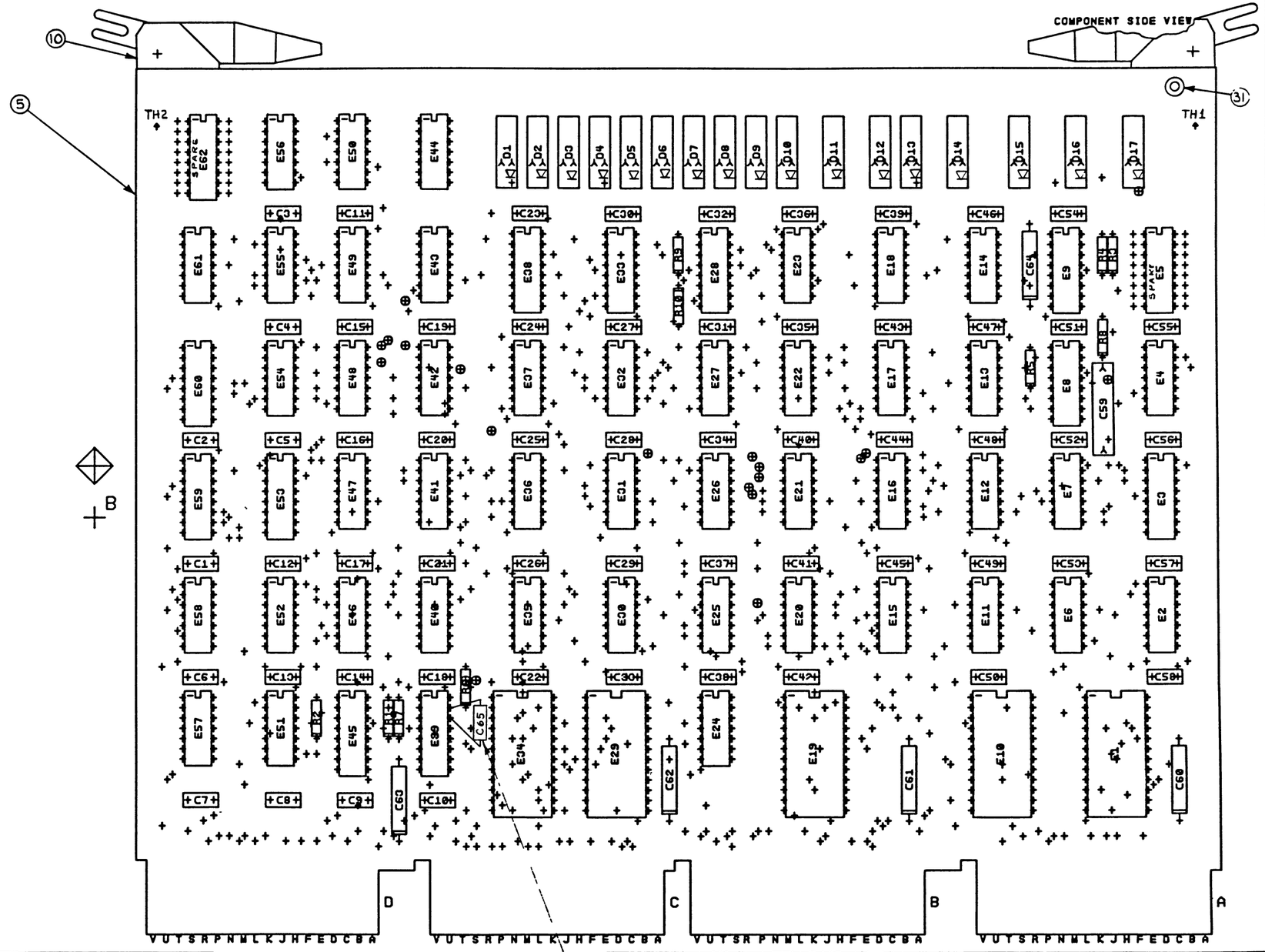


NOTES:

| CHK | CHANGE NO | REV |
|---|---|---|
| | REVISED 4 | |
| | REDRAWN | |
| | M7907-ML14 | C |
| dg | M7907-5 | E |
| | 5-Jan-79 11:04:29 | |
| | M.CASTELLANOS | |
| | M. Castellanos 2-Jan-79 | |

ETCH REV. B-P1
P.C. DESIGN DATA BASE REV. B

| SIGNATURES | DATE |
|---|---|
| DRN. P. NICHOLLS | 5-12-78 |
| CHK'D. | 5-30-78 |
| ENG. | 10-12-78 |
| PROJ.ENG. | 10-12-78 |
| PROD. | 10-8-78 |
| SCALE 2X | |
| SHT. 1 OF 4 | |

digital

TITLE: SERVO CONTROL

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | UA | M7907-0-0 | E |

NEXT HIGHER ASSY. B-DD-M7907-0-0

1 MS#

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CH2
SCI CYL ADD 9 (I) H
SCI ADDSHIFT L
74164 E32
R7 (I)
R6 (I)
R5 (I)
R4 (I)
R3 (I)
R2 (I)
R1 (I)
DSØ IN
RØ (I)
CLR CLK
SCI CYL ADD 1 H
SCI CYL ADD 2 H
SCI CYL ADD 3 H
SCI CYL ADD 4 H
SCI CYL ADD 5 H
SCI CYL ADD 6 H
SCI CYL ADD 7 H
SCI CYL ADD 8 H
CE2
CF2
+3V
I&T1 STAT ADD (1) H
CV1
7474 E27
SCI (L+UL+R+Z) B-L
SCI CYL ADD 1 H
SCI CYL ADD Ø (1) H
I&T1 STAT ADD (Ø) H
CR2
7486 E49
SCI SK COMM (1) H
SCI CARRY (1) H
SCI CARRY (1) L
SCI CARRY (Ø) H
I&T4 T3 L
(DD2)
7474 E42
SCI DIFF 1 L
SCI DIFF Ø (1) L
7474 E5Ø
I&T4 TI5 H
CR1
7400 E44
7400 E43
7400 E37
7410 E36
7420 E24
7404 E47
7408 E41
7474 E4Ø
7474 E42
7474 E56
R7 (I)
R6 (I)
R5 (I)
R4 (I)
R3 (I)
R2 (I)
R1 (I)
DSØ IN
RØ (I)
CLR CLK
SCI DIFF 1 L
SCI DIFF 2 L
SCI DIFF 3 L
SCI DIFF 4 L
SCI DIFF 5 L
SCI DIFF 6 L
SCI DIFF 7 L
SCI DIFF 8 L
7486 E54
7486 E61
7486 E49
7486 E61
SCI DIFF 9 (Ø) L
74193 E53
74193 E59
74193 E6Ø
CRY BRW
DØ
D1
D2
D3
RØ (I)
R1 (I)
R2 (I)
R3 (I)
R4 (I)
CUP CLR LD CDN
CLR LD CUP CDN
CUP CDN CLR LD
SC4 TRK CT (Ø) H
(CP)
ANI
SCI CYL DIFF Ø H
SCI CYL DIFF 1 H
SCI CYL DIFF 2 H
SCI CYL DIFF 3 H
SCI CYL DIFF 4 H
SCI CYL DIFF 5 H
SCI CYL DIFF 6 H
SCI CYL DIFF 7 H
SCI CYL DIFF 8 H
SCI CYL DIFF 9 H
SC2 LD DIFF CTR L
SCI (L+UL+RTZ) B-L
SCI (L+UL+RTZ) L
CU2
SC3 LD HDS (I) L
DC1 UNLD HDS (I) L
SC3 RTZ (I) L
CD2
DC6 FAULT H
SC4 TI5 P EXT (I) H
SC2 READ Ø TRK (I) L
DP2
CH1
SCI LD DIR L
R1
1ØK
+5V
I&T1 CP H
DD1
74123 E45
12Ø NS
SCI ADD SHIFT L
DR2
SCI ADD EN (I) L
I&T4 T14 H
CT2
SCI SIGNAL A H
I&T4 VOL VAL (1) H
DP1
DM1
DF1
DC2 READY (1) H
I&T1 BUFF 1 (1) H
I&T4 T4 H
DA1
SCI INP SK COMM L
SC4 TI5 PEXT (I) H
DC1
SCI SK COMM (Ø) H
I&T4 VOL VAL H
I&T1 STAT ADD (1) H
SCI SK COMM (Ø) H
(CV1)
SCI CYL ADD 1 H
I&T4 T13 L
CM1
I&T4 T4 H
DF2
DM2
DP2
DC2 READY (1) H
I&T1 BUFF 1 (1) H
I&T4 T3 L
DD2
I&T4 T4 H
DF2

| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO. | REV. | |
| [illegible] | M7907-00001 | A | |
| M. SIDMAN | M7907-000002 | B | |
| J. HUNT | M7907-ML003 | C | |
| P. NICHOLLS | M7907-ML004 | D | |
| P. CASTELLANOS | M7907-ML005 | E | |
| M. CASTELLANOS | | | |

| | | |
|---|---|---|
| DRN | J. Angeli | 8-1-77 |
| CHK'D | [illegible] | 9-30-77 |
| ENG | [illegible] | 9-30-77 |
| PROJ. ENG | [illegible] | 9-6-77 |
| PROD | [illegible] | 9/6/77 |
| NEXT HIGHER ASSY. | B-DD-(M7907)-Ø | |
| SCALE | NONE | |
| SHEET | 1 OF 4 | |

FIRST USED ON: RKØ7

digital

TITLE: SERVO CONTROL (SCI)

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | CS | M7907-Ø-1 | E |

DIST.

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SCI CYL ADD 9 (1) H — D1
SCI CYL ADD 8 H — D2
SCI CYL ADD 7 H — D3
SCI CYL ADD 6 H — D4
SCI CYL ADD 5 H — D5
SCI CYL ADD 4 H — D6
SCI CYL ADD 3 H — D7
SCI CYL ADD 2 H — D8
SCI CYL ADD 1 H — D9
SCI CYL ADD Ø(1) H — DIØ

SCI CYL DIFF Ø H — 74Ø2 E52 — 74Ø4 E51 — DH2 — SC2 DAC Ø H
SCI CYL DIFF 1 H — 74Ø2 E52 — 74Ø4 E51 — DL1 — SC2 DAC 1 H
SCI CYL DIFF 2 H — 74Ø2 E52 — 74Ø4 E51 — DL2 — SC2 DAC 2 H
SCI CYL DIFF 3 H — 74Ø2 E52 — 74Ø4 E51 — DK2 — SC2 DAC 3 H
SCI CYL DIFF 4 H — (AN1) — 74Ø2 E46 — 74Ø4 E51 — DK1 — SC2 DAC 4 H
SCI CYL DIFF 5 H — 74Ø2 E46 — 74Ø4 E51 — DJ2 — SC2 DAC 5 H
SCI CYL DIFF 6 H — 74Ø2 E46 — 74Ø4 E3Ø — 74Ø8 E21 — CL1 — SC2 DAC 6 H

SCI CYL DIFF 7 H — 74Ø4 E47 — 1Ø
SC2 OFFSET (Ø)H — (DS2) — 741Ø E48
SCI CYL DIFF 9 H — 741Ø E48 — 741Ø E48
SCI CYL DIFF 8 H — 74Ø4 E47

SCI SK COMM(Ø) H — 741Ø E31
SCI DIFF 7 L — 741Ø E48 — 74Ø4 E47
SCI DIFF 8 L
SCI CARRY (1) L
DVI — I&T2 INP WR GATE L
DU1 — SC2 OFFSET COMM L

SC2 OFFSET(1) H — (DT2) — 74Ø8 E41 — 74123 E45 — (DU2) — SC2 OFFSET CL (1) L
+5V — R2 43K
DT2 — SC2 OFFSET (1) H — D11
DS2 — SC2 OFFSET (Ø) H
+3V — DU2 — SC2 OFFSET CL(Ø)H

+3V — I&TI BUFF 1 (1) H — (DN1) — 7474 E26
I&T4 T7 L — BB2
I&T4 T3 L — DD2
SCI SIGNAL A H
SC4 MOVE L — (DV2) — 74Ø8 E41
DC1 HOME L — (CD2)

SCI DIFF9(Ø) L — 74Ø8 E23
SCI DIFF 6 L
SCI DIFF 5 L
SCI DIFF 4 L
SCI DIFF 3 L
SCI DIFF 2 L
SCI DIFF 1 L
SCI DIFF Ø L — 743Ø E55

SCI SK COMM(1) H — (DC1) — 741Ø E31
741Ø E25
741Ø E25
SCI (L+UL+RTZ) L — (CU2) — 74Ø4 E3Ø — SC2 LD DIFF CTR L

DC4 R/W UNSAFE(1) H — AA1 — CH1 — SC2 READ Ø TRK(1) L
SCI SK COMM(1) H — (DC1) — 7474 E35
I&TI BUFF 3 (1) H — BM1 — 7474 E2
I&TI BUFF 2 (1) H — BN2 — 7474 E2
D13 — D12

7442 E3 — f9 f8 f7 f6 f5 f4 f3 f2 f1 fØ
D3 D2 D1 DØ
AD1 — SC2 HD 2 L
AD2 — SC2 HD 1 L
AC1 — SC2 HD Ø L

SCI CYL DIFF 9 H — 74Ø4 E3Ø
SCI CYL DIFF 6 H — 74Ø2 E58
SC2 DIFF CTR Ø H — 74Ø4 E22
SC4 MOVE H
+3V — 7474 E26 — AB2 — SC2 SHORT SEEK(1) L

11 — 74Ø2 E46 — CN1 — SC2 DIFF CTR=Ø H
7430 E57 — 7420 E14 — 74Ø4 E3Ø — CB1 — SC2 HIGH HVS L
SC4 ONE TRK(Ø)L — (AB1)

7485 E28 — IN= IN< IN>
SCI CYL ADD 3 H
SCI CYL ADD 2 H
SCI CYL ADD 1 H
SCI CYL ADD Ø(1)H
+3V

7485 E33 — IN> IN= IN<
SCI CYL ADD 7 H
SCI CYL ADD 6 H
SCI CYL ADD 5 H
SCI CYL ADD 4 H
+3V

7485 E38 — IN> IN= IN<
SCI CYL ADD 8 H — CS2 — SC2 BAD ADDRESS H
SCI CYL ADD 9 (1) H — (CH2)
+3V

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| SERVO CONTROL (SC2) | D | CS | M7907-Ø-1 | E |
| SCALE NONE | SHEET 2 OF 4 | | DIST. | |

DEC FORM NO. DRD 130

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R3 43K
+5V
C64 2.2μf 35V
74123 E9
+3V
74474 E18
D15
(BD2)
SC3 LD HDS (1) H
SA5 OUTER LIM (1) H
BR1
74ØØ E16
SC3 RTZ (1) H
74Ø8 E21
AP2
SC3 LD HDS (1) L
SC3 RTZ (1) H
(CP1)
SC4 TRK CT (Ø) H
74ØØ E16
74Ø4 E4
SC3 CLR DIR H
74Ø4 E4
742Ø E14
(CD2)
DC1 UNLD HDS (1) L
(CN1)
SC2 DIFF CTR = Ø H
(BS1)
TPD2 FINE TRK H
741Ø E17
(CD2)
DC1 UNLD HDS (1) L
BN1
SA5 INNER LIM (1) L
74Ø8 E23
SCI CARRY (1) L
SCI LD DIR L
7474 E12
DI6
BF2
SC3 FWD (1) H
74ØØ E15
BH1
SC3 EN FWD SVO L
(CU2)
(CN1)
SC2 DIFF CTR = Ø H
SCI (L+UL+RTZ) L
SC3 SIGNAL B
I&T1 BUFF (1) H
(DN1)
DC2 READY (1) H
(DM1)
I&T4 T5 H
DN2
741Ø E17
+3V
7474 E18
SC3 RTZ (1) H
SC3 RTZ (1) L
SA5 INNER LIM (1) H
BU1
DC2 SETTLING (1) L
BU2
DC1 UNLD HDS (1) L
CD2
74Ø8 E23
+5V
R4 43K
74123 E9
+3V
D14
DC1 UNLD HDS (1) H
BR2
(CB2)
DC1 HOME L
74ØØ E16
(BP1)
SC3 UNLDG HDS L
SCI CARRY (1) H
SCI LD DIR L
7474 E12
DI7
(BE2)
SC3 REV (1) H
74Ø8 E21
741Ø E17
DC1 HOME L
(CB2)
74Ø4 E4
SC2 HD 2 L
SC2 HD 1 L
SC2 HD Ø L
SC3 CLR DIR H
SCI (L+UL+RTZ) L
(CU2)
74ØØ E16

I&T3 STROBE MUX 1 L — BK2
I&T3 MESS A PAR H — AF1
BP1 — SC3 UNLDG HDS L — 74Ø4 E22
STB
SC3 RTZ (1) H
(BD2) SC3 LD HDS (1) H
(BE2) SC3 REV (1) H
BF2 SC3 FWD (1) H
BH2 DC5 SPEED OK H
BJ1 DC1 CART PRES H
BL1 DC1 LID LOCKED H
BL2 CN/I/Ø BRUSH HOME H
BK1 DC1 HOME H
BB1 TPD3 SVO SIG PRES H
74154Ø E19
CC1 I&T3 U2 H
CA1 I&T3 U1 H
BV2 I&T3 UØ H
S3 S2 S1 SØ
BJ2 SC3 MUX A1 L

I&T3 STROBE MUX 2 L — CM2
SCI CYL DIFF 9 H
SCI CYL DIFF 8 H
SCI CYL DIFF 7 H
SCI CYL DIFF 6 H
SCI CYL DIFF 5 H (AN1)
SCI CYL DIFF 4 H
SCI CYL DIFF 3 H
SCI CYL DIFF 2 H
SCI CYL DIFF 1 H
SCI CYL DIFF Ø H
74154Ø E34
BV1 SC3 MUX A2 L

I&T3 STROBE MUX 3 L — AU1
BP SN 8ØØ H — AR2
BP SN 4ØØ H — AP1
BP SN 2ØØ H — AR1
BP SN 1ØØ H — AS2
BP SN 8Ø H — AS1
BP SN 4Ø H — BM2
BP SN 2Ø H — AT2
BP SN 1Ø H — BD1
BP SN 8 H — BC1
BP SN 4 H — BA1
BP SN 2 H — AV1
BP SN 1 H — AV2
74154Ø E1Ø
AU2 SC3 MUX A3 L

I&T3 STROBE MUX 2 L — (CM2)
I&T3 MESS B PAR H — CD1
SCI CYL ADD 9 (1) H — CH2
SCI CYL ADD 8 H — CF2
SCI CYL ADD 7 H — CE2
SCI CYL ADD 6 H
SCI CYL ADD 5 H
SCI CYL ADD 4 H
SCI CYL ADD 3 H
SCI CYL ADD 2 H
SCI CYL ADD 1 H
SCI CYL ADD Ø (1) H
+3V
74154Ø E29
CL2 SC3 MUX B2 L

I&T3 STROBE MUX 3 L — (AU1)
DC4 SECTOR CT 4 H — AF2
DC4 SECTOR CT 3 H — AN2
DC4 SECTOR CT 2 H — AL1
DC4 SECTOR CT 1 H — AM2
DC4 SECTOR CT Ø H — AJ1
+3V
74154Ø E1
AK2 SC3 MUX B3 L

I&T4 CLK CTR 3 H — CK2
I&T4 CLK CTR 2 H — AJ2
I&T4 CLK CTR 1 H — AH1
I&T4 CLK CTR Ø H — AH2

REVISIONS
CHK | CHANGE NO. | REV

TITLE: SERVO CONTROL (SC3)
SIZE D | CODE CS | NUMBER M7907-Ø-1 | REV E
SCALE NONE | SHEET 3 OF 4 | DIST.

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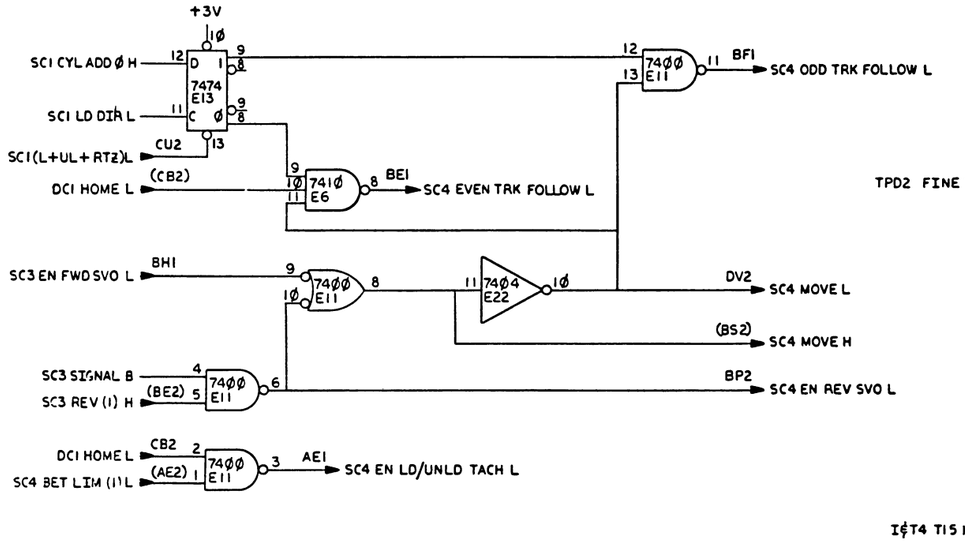


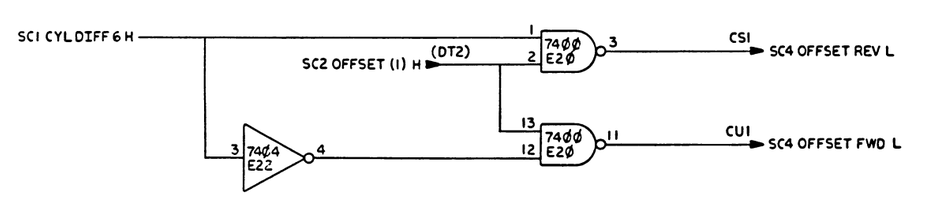


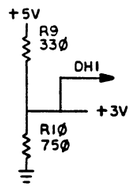


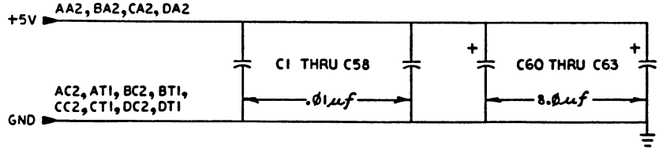


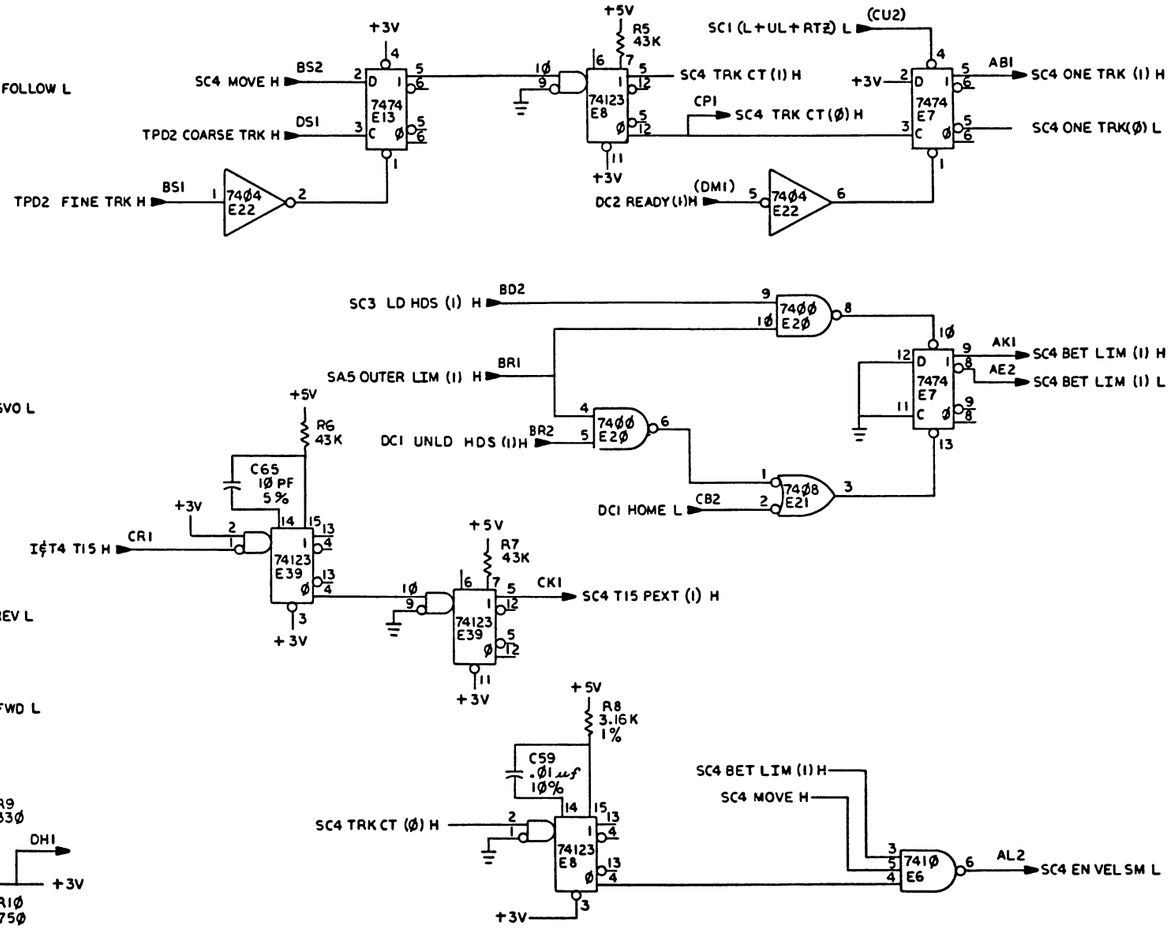


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| SERVO CONTROL (SC4) | D | CS | M7907-0-1 | E |
| SCALE NONE / SHEET 4 OF 4 | DIST. | | | |

DEC FORM NO. 10 138

M7907-0-1 REV E

AUTOMATED BY PRTLST.1D(7)

# P A R T S  L I S T



| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-M7907-0-1 | | CIRCUIT SCHEMATIC | REF | |
| 2 | 2 | D-UA-M7907-0-0 | | UNIT ASSY | REF | |
| 3 | 3 | B-DD-M7907-0-0 | | DRAWING DIRECTORY | REF | |
| 4 | 4 | D-MD-5012765-0-0 | | DRILL & ETCH DWG. | REF | |
| 5 | 5 | | 5012765-00 | M7907 | 1 | |
| 6 | 6 | | 1001610-01 | .01 MFD50/100V +80-20% DISC | 58 | C1-C58 |
| 7 | 7 | | 1012084-01 | 8 MFD 25V +75-10% AL EL | 4 | C60-C63 |
| 8 | 8 | | 1002431-00 | 2.2MFD 35V 10% S.TANT | 1 | C64 |
| 9 | 9 | | 1112689-00 | LED .8MCD@16MA VF=5V | 17 | D1-D17 |
| 10 | 10 | | 1213113-01 | HANDLE,MODULE | 1 | |
| 11 | 11 | | 1300295-00 | 330.0 .25 W 5.0 % CC | 1 | R9 |
| 12 | 12 | | 1301401-00 | 750.0 .25 W 5.0 % CC | 1 | R10 |
| 13 | 13 | | 1303045-00 | 3.16 K .25 W 1.0 % RN55D-F10 | 1 | R8 |
| 14 | 14 | | 1300479-00 | 10.0 K .25 W 5.0 % CC | 1 | R1 |
| 15 | 15 | | 1304838-00 | 43.0 K .25 W 5.0 % CC | 6 | R2-R7 |
| 16 | 16 | | 1905547-00 | 7474 FF-D DUAL,EDGE TRIGG | 11 | E2,E12,E13,E18,E26,E27,E35,E40, |
| | | | | | CONT | E42,E50,E7 |
| 17 | 17 | | 1905575-00 | 7400 NAND GATE-QUAD 2IN | 7 | E11,E15,E16,E20,E37,E43,E44 |
| 18 | 18 | | 1905577-00 | 7420 NAND GATE-DUAL 4INPU | 2 | E14,E24 |
| 19 | 19 | | 1905578-00 | 7430 NAND GATE-SINGLE 8IN | 2 | E55,E57 |
| 20 | 20 | | 1909004-00 | DEC 7402 NOR GATE-QUAD 2IN | 3 | E46,E52,E58 |
| 21 | 21 | | 1909686-00 | 7404 INVERTER GATE-HEX 1I | 5 | E4,E22,E30,E47,E51 |
| 22 | 22 | | 1910011-00 | DEC 7486 X-OR GATE-QUAD 2INPU | 3 | E49,E54,E61 |
| 23 | 23 | | 1910018-00 | DEC 74193 COUNTER,SYNCHR. UP/D | 3 | E53,E59,E60 |
| 24 | 24 | | 1910041-00 | DEC 74164 SHIFT REG.,8BIT SERI | 2 | E32,E56 |
| 25 | 25 | | 1910046-00 | 7442 DECODER-1 OF 10,BCD | 1 | E3 |
| 26 | 26 | | 1910153-00 | DEC 74150 MUX 1 OF 16 | 5 | E1,E10,E19,E29,E34 |
| 27 | 27 | | 1910155-00 | DEC 7408 AND GATE,POS.QUAD 2I | 3 | E21,E23,E41 |
| 28 | 28 | | 1910436-00 | DEC 74123 ONE SHOT-DUAL,RETRIG | 4 | E8,E9,E39,E45 |
| 29 | 29 | | 1910224-00 | DEC 7485 COMPARATOR-4BIT | 3 | E28,E33,E38 |

| REVISION HISTORY | | | BASIC PART NO: M7907 |
|---|---|---|---|
| ENG | ECO NUMBER | REV | SECTION A OF A |
| W.H | 00002 | B | SECTION.VARIATION INDEX |
| E.R | ML003 | C | [A] 00 |
| C.L | ML004 | D | [B] |
| MC | M7907-ML005 | E | [C] |
| | | | [D] |
| | | | [E] |
| | | | [F] |
| | | | [H] |
| | | | [J] |
| | | | [K] |
| | | | [L] |
| | | | [M] |
| | | | [N] |

DRN: R.WALDIE — DATE: 31-JAN-78

CHK'D: C.BEVERLIE — DATE: 31-JAN-78

DES.ENG: M.D.SIDMAN — DATE: 31-JAN-78

RESP.ENG.: M.D.SIDMAN — DATE: 31-JAN-78

MFG.ENG.: M.D.SIDMAN — DATE: 31-JAN-78

ASSEMBLY NUMBER: D-UA-M7907-0-0

TOP DOCUMENT NUMBER: OPTION/MODEL RK07

| | D | I | G | I | T | A | L |
|---|---|---|---|---|---|---|---|

TITLE PARTS LIST

SERVO CONTROL

DOCUMENT NUMBER

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| K | PL | M7907-0-DBP | E |

FILE NAME: Z0768E.PLS

EDIT # 13

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AUTOMATED BY PRTLST.1D(7) — P A R T S  L I S T — SHEET A2 OF A2

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 30 | 30 | | 9105740-55 | *** THIS ITEM IS NOT USED *** | - | |
| 31 | 31 | | 9000024-01 | EYELET,ROLL FLANGE .1210DX .192 | 8 | |
| 32 | 32 | | 9107256-11 | *** THIS ITEM IS NOT USED *** | - | |
| 33 | 33 | | 1005784-00 | .01 MFD 100V 10% MYLR | 1 | C59 |
| 34 | 34 | | 1905576-00 | 7410 NAND GATE-TRIPLE 3IN | 6 | E6,E17,E25,E31,E36,E48 |
| 35 | 35 | | 1000006-00 | 10.0 MMF 100V 5%200PPM MICA | 1 | |
| 36 | 36 | | 9107256-09 | TUBING,THIN WALL,.027ID UL | 1 | C65 |

| DIGITAL | TITLE | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|
| | SERVO CONTROL<br>SECTION A OF A | K | PL | M7907-0-DBP | E |

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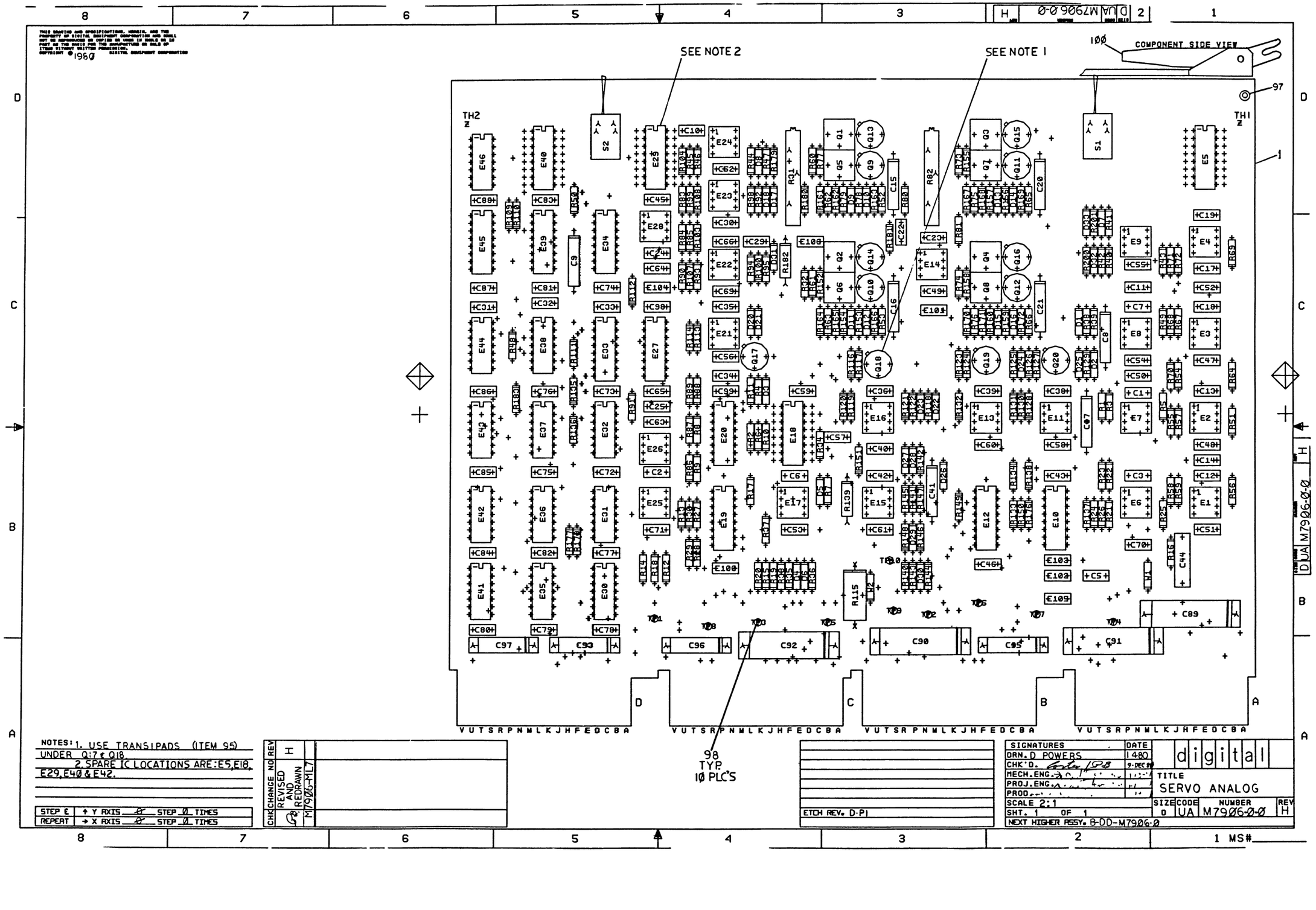


NOTES: 1. USE TRANSIPADS (ITEM 95) UNDER Q17 & Q18.
2. SPARE IC LOCATIONS ARE: E5, E18, E29, E40 & E42.

| STEP ↕ | ↑ Y AXIS 0 | STEP 0 TIMES |
|---|---|---|
| REPEAT | → X AXIS 0 | STEP 0 TIMES |

| CHK | CHANGE NO | REV |
|---|---|---|
| | REVISED AND REDRAWN | H |
| | M7906-ML7 | |

ETCH REV. D-P1

| SIGNATURES | DATE |
|---|---|
| DRN. D POWERS | 1480 |
| CHK'D. | 9-DEC-80 |
| MECH. ENG. | |
| PROJ. ENG. | |
| PROD | |
| SCALE 2:1 | |
| SHT. 1 OF 1 | |
| NEXT HIGHER ASSY. B-DD-M7906-0 | |

digital

TITLE: SERVO ANALOG

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | UA | M7906-0-0 | H |

MS#

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R6 100K,1%
R2 9.09K,1%
R3 10K,1%
R7 100K 1%
CC1
R1 10K,1%
(BA1) SA7 VELOCITY COMMAND
-15V
2Ø1A E7
R4 9.09K,1%
C1 33pf
C5Ø .Ø1µf
R5 4.7K
+15V

R19 2ØØK,1%
R14 10K,1%
CE1 SA1 -TRACK ERROR
R13 10K,1%
(BR2) TP3 TRACK ERROR
R12 10K
TP1 TE TEST POINT
2Ø1A E25
R2Ø 2ØØK,1%
C71 .Ø1µf
C2 33pf
R18 4.7K
+15V

(BM2) SA4 -VELOCITY FWD=NEG REV=POS
R15 10K,1%
C44 .ØØ68µf,1% AU1
R21 100K,1%
-15V
C/N I/O HD LD 1 (TACH) (CR2)
C/N I/O HD LD 2 (COMPENSATION) (AU2)
R22 14.7K,1%
R26 2.2K
2Ø1A E6
R16 10K,1%
R17 10K,1%
C7Ø .Ø1µf
C3 33pf
C5 .1µf 1Ø%
R23 1K 1%
R24 1K 1%
R25 5.62K 1%
+15V
HEAD LOADING TACH AMPLIFIER

XH5Ø12 E2Ø
+5V
R8 2.2K
(BU1) SC4 OFFSET FWD L
S12
R9 2.2K
(BV1) SC4 OFFSET REV L
S11
R1Ø 2.2K
(BP1) SC3 EN FWD SVO L
EFSL TEST POINT TP2
S1Ø
R11 2.2K
(CA1) SC4 EN REV SVO L
ERSL TEST POINT TP3
S9

XH5Ø12 E19
R27 2.2K
(BN2) SC4 ODD TRACK FOLLOW L
S14
R28 2.2K
(BK2) SC4 EVEN TRACK FOLLOW L
S15
R29 2.2K
(DM2) SC4 BET LIM (1) L
S13
R3Ø 2.2K
(CU2) SC4 EN LD/UNLD TACH L
S16
GRAND SUMMER

SA1 GRAND SUMMING JUNCTION INPUT

| REVISIONS | | | REV |
|---|---|---|---|
| CHK | CHANGE NO. | | |
| [illegible] | M7906-00001 | 1 JUL 77 | E |
| M. SIDMAN | — | [illegible] | |
| [illegible] | M7906-00002 | 14 MAR 78 | C |
| D. ZELICKSON | | | |
| L. HUNT | M7906-00003 | 21 MAR 78 | D |
| [illegible] | M7906-00004 | 11 APR 78 | |
| STEVE LITTLE | | | |
| L. HUNT | | 23 AUG 78 | |

| | | | |
|---|---|---|---|
| ML004 | E | M7906-ML006 | F |
| J. CARTER | | M. CASTELLANOS | |
| CASTELLANOS | | M7906-ML007 | H |
| | | M. CASTELLANOS | |

| | | |
|---|---|---|
| DRN S. Conely | 9-15-77 | FIRST USED ON RKØ7 |
| CHK'D | 9-28-77 | digital |
| ENG | 9-28-77 | TITLE |
| PROJ ENG. | 9-21-77 | SERVO ANALOG (SA1) |
| PROD | 10-3-77 | |
| NEXT HIGHER ASSY. | | SIZE D CODE CS NUMBER M7906-Ø-1 REV. H |
| B-DD-M7906-Ø | | |
| SCALE | | DIST. |
| SHEET OF | | |

M7906-0-1 H

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R179 19.6K 1%
R182 470 1/2W
+15V
R31 10K 10 TURNS
D31 .4M5.121 1%
SERVO OFFSET ADJUSTMENT (NOT FIELD ADJUSTABLE)
SA7-REF(-5.1V)
R180 19.6K 1%

C106 .01μf
R32 590K 1%
R33 137K 1%
BP2
TP10 BP
+15V
R34 4.7K
D3 DGG4
IN754A D5
VZ=6.8V 5%
D4 DGG4
IN754A D6
VZ=6.8V 5%
R35 4.7K
R36 137K 1%
-15V
AV2
SA2 SUM 1
LIMITER

ANTI-RESONANCE 1.2 KHZ
LOWPASS FILTER
DAMPING FACTOR=.5
D C GAIN=1

C8 4700pf 1%
TP4 CC TEST POINT
AS1
TP5 CCA TEST POINT
CB1 SA2 CURRENT COMMAND
S1 SEE NOTE 2

SA1 GRAND SUMMING JUNCTION INPUT
-15V
2101A E17
R38 56.2K 1%
R39 56.2K 1%
C53 .01μf
R37 8.2K
C6 33pf
+15V
C11 1200pf 5%
+15V
C54 .01μf
2101A E8
C7 33pf
R49 120K
-15V

R40 10K 1%
+15V
C55 .01μf
R41 10K 1%
741 E9
R43 4.7K
D7 DGG4
D8 DGG4
-15V
R42 10K
R46 47K
R44 4.7K
R45 4.7K
311 E24
C62 .01μf
-15V
SA7-REF(-5.1V) (AR2)

+15V
+5V
R47 820
C10 .01μf
7414 E44
C9 6.8 μf 35V
R50 10K 1%
74123 E39
7414 E44
7414 E44
7474 E37
DU1
CP2 SA2 SVO UNS (1) L
CN2 SA2 SVO UNS (1) H
DJ1 DC4 HOME & CLR ERR L
DV1

+5V
S2 SEE NOTE 1
R48 1K
7414 E44
7401 E35
CS2 SA2 WRO PROT SW L

NOTES:
1. SAFETY SWITCH (S2) PUT HANDLE TOWARD "MAINT" WHEN ADJUSTING HEADS
2. SERVO RELEASE SWITCH (S1) PUT HANDLE TOWARD "MAINT" TO MOVE CARRIAGE BY HAND

SERVO UNSAFE DETECTOR

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

DEC FORM NO. DRD 138

TITLE: SERVO ANALOG (SA2)
SIZE D CODE DCS NUMBER M7906-0-1 REV. H
SCALE — SHEET 2 OF 7 DIST.

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R57 39.2 1% → AE1 SA3 -COS I

CN/I/O COS PA ABI → R51 1K 1% → 301 E2 pin 2

(AR2) SA7 -REF (-5.1V) → R54 27.4 1% → 301 E2 pin 3

+15V → 301 E2 pin 7

R55 1.47K 1%

C13 6.8pf

C48 .01µf

-15V

C15 4700pf 1% → R52 1K 1%

R58 10K 1%

R59 10K 1% → AD1 SA3 +COS I

R56 2.2K

C12 .01µf

301 E1

C51 .01µf

C14 15pf

C16 4700pf 1% → R53 1K 1%

R70 39.2K 1% → AJ1 SA3 +SIN I

CN/I/O -SIN PA AA1 → R64 1K 1% → 301 E3 pin 2

SA7 -REF(-5.1V) (AR2) → R67 27.4K 1% → 301 E3 pin 3

R68 1.47K 1%

C18 6.8pf

C47 .01µf

C20 4700pf 1% → R65 1K 1%

R71 10K 1%

R72 10K 1% → AF1 SA3 -SIN I

R69 2.2K

C17 .01µf

301 E4

C52 .01µf

C19 15pf

C21 4700pf 1% → R66 1K 1%

## S2A

SA4 EN S2A L (CR1) → R60 1.5K → Q1 2N3906

R77 470 +5V

R78 2.7K -15V

D9 D664

Q9 2N5638 (D, G, S)

R79 47K -15V

## S2B

SA4 EN S2B L → R62 1.5K → Q5 2N3906

R161 470 +5V

R162 2.7K -15V

D10 D664

Q13 2N5638 (S, D, G)

R163 47K -15V

## S1A

SA4 EN S1A L (CS1) → R61 1.5K → Q2 2N3906

R152 470 +5V

R153 2.7K -15V

D11 D664

Q10 2N5638 (D, G, S)

R154 47K -15V

## S1B

SA4 EN S1B L → R63 1.5K → Q6 2N3906

R164 470 +5V

R165 2.7K -15V

D12 D664

Q14 2N5638 (S, D, G)

R166 47K -15V

SA3 VELOCITY JUNCTION INPUT

## S4A

SA4 EN S4A L (CF1) → R73 1.5K → Q3 2N3906

R155 470 +5V

R156 2.7K -15V

D13 D664

Q11 2N5638 (D, G, S)

R157 47K -15V

## S4B

SA4 EN S4B L → R75 1.5K → Q7 2N3906

R167 470 +5V

R168 2.7K -15V

D14 D664

Q15 2N5638 (S, D, G)

R169 47K -15V

## S3A

SA4 EN S3A L (CJ1) → R74 1.5K → Q4 2N3906

R158 470 +5V

R159 2.7K -15V

D15 D664

Q12 2N5638 (D, G, S)

R160 47K -15V

## S3B

SA4 EN S3B L → R76 1.5K → Q8 2N3906

R170 470 +5V

R171 2.7K -15V

D16 D664

Q16 2N5638 (S, D, G)

R172 47K -15V

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV |
|---|---|---|---|---|
| SERVO ANALOG (SA3) | D | CS | M7906-0-1 | H |
| SCALE — | SHEET 3 OF 7 | DIST. | | |

DEC FORM NO. DRD 128

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BT2 SA4 TP TRIM
R181 10K 1%
C22 1200pf
R80 10K 1%
R82 5K
+15V
C49 .01μf
SA3 VELOCITY JUNCTION INPUT
201 E14
-15V
R81 12K
C23 33pf
SEEK TIME ADJUSTMENT CLOCKWISE FOR FASTER
BM2 SA4 -VELOCITY 200MV/(IN/SEC) FWD=NEG REV=POS
TP6 SA4 -VEL TEST POINT
SA3 -COS I (AE1)
SA3 +SIN I (AJ1)
+5V
R83 820
C24 .01μf
7414 E44
+15V
C64 .01μf
311 E28
-15V
R84 10K, 1%
R85 10K, 1%
R90 470K
R86 10K, 1%
R87 10K, 1%
311 E26
C63 .01μf
+5V
R89 820
C25 .01μf
7414 E44
R91 470K
R88 10K
74132 E31
7404 E30
SA4 EN S1B L
CS1 SA4 EN S1A L
BR1 SA4 CT REV L
SA4 EN S2B L
CR1 SA4 EN S2A L
CH1 SA4 CT REV H
SA4 EN S3B L
CJ1 SA4 EN S3A L
AC1 SA4 CT FWD H
SA4 EN S4B L
CF1 SA4 EN S4A L
BS1 SA4 CT FWD L

REVISIONS
CHK | CHANGE NO | REV

DEC FORM NO. DRD 138

TITLE SERVO ANALOG (SA4)
SIZE D | CODE CS | NUMBER M7906-0-1 | REV. H
SCALE — | SHEET 4 OF 7 | DIST.

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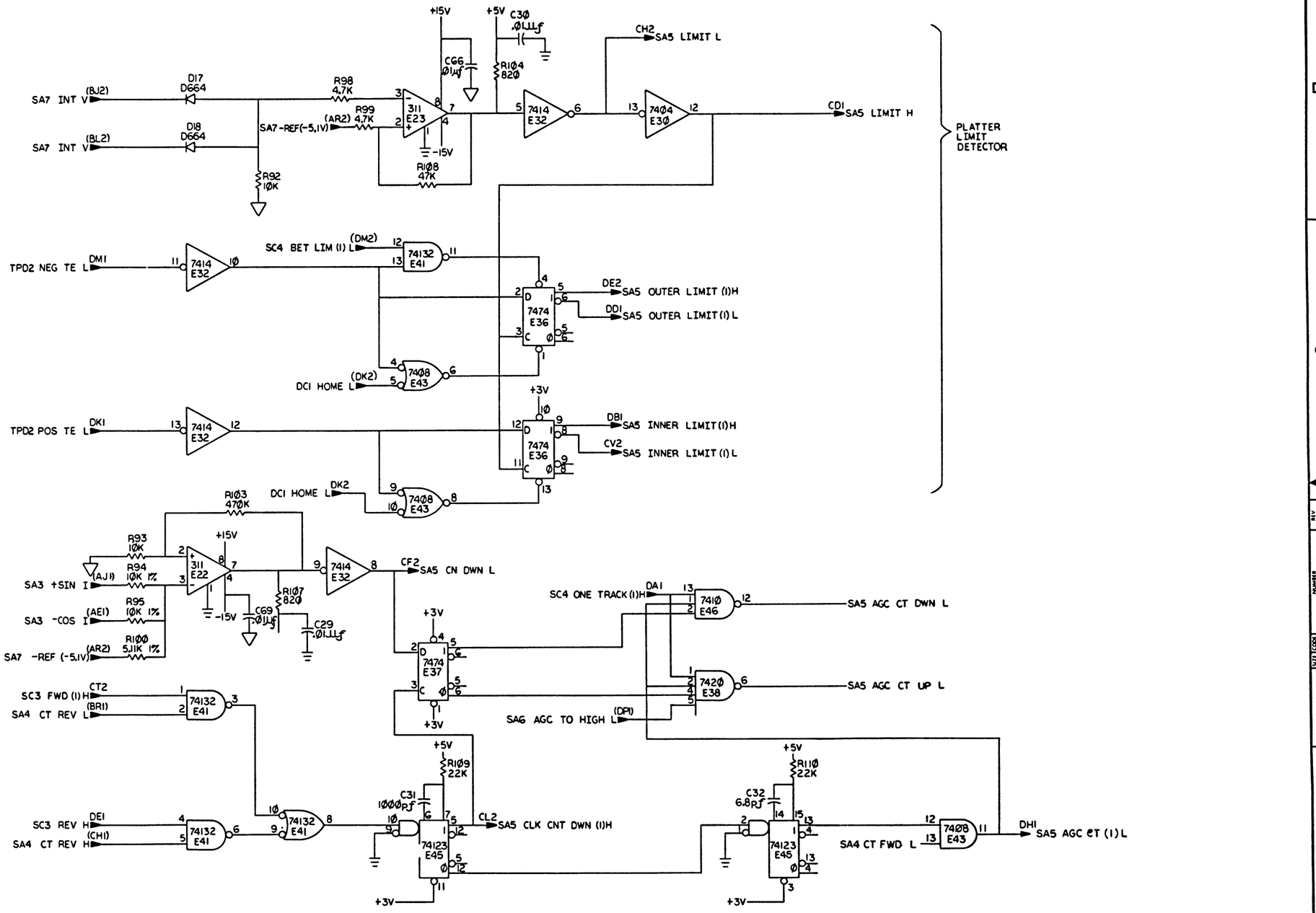


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| SERVO ANALOG (SA5) | D | CS | M7906-0-1 | H |
| SCALE — SHEET 5 OF 7 | DIST. | | | |

DEC FORM NO. DRD 138

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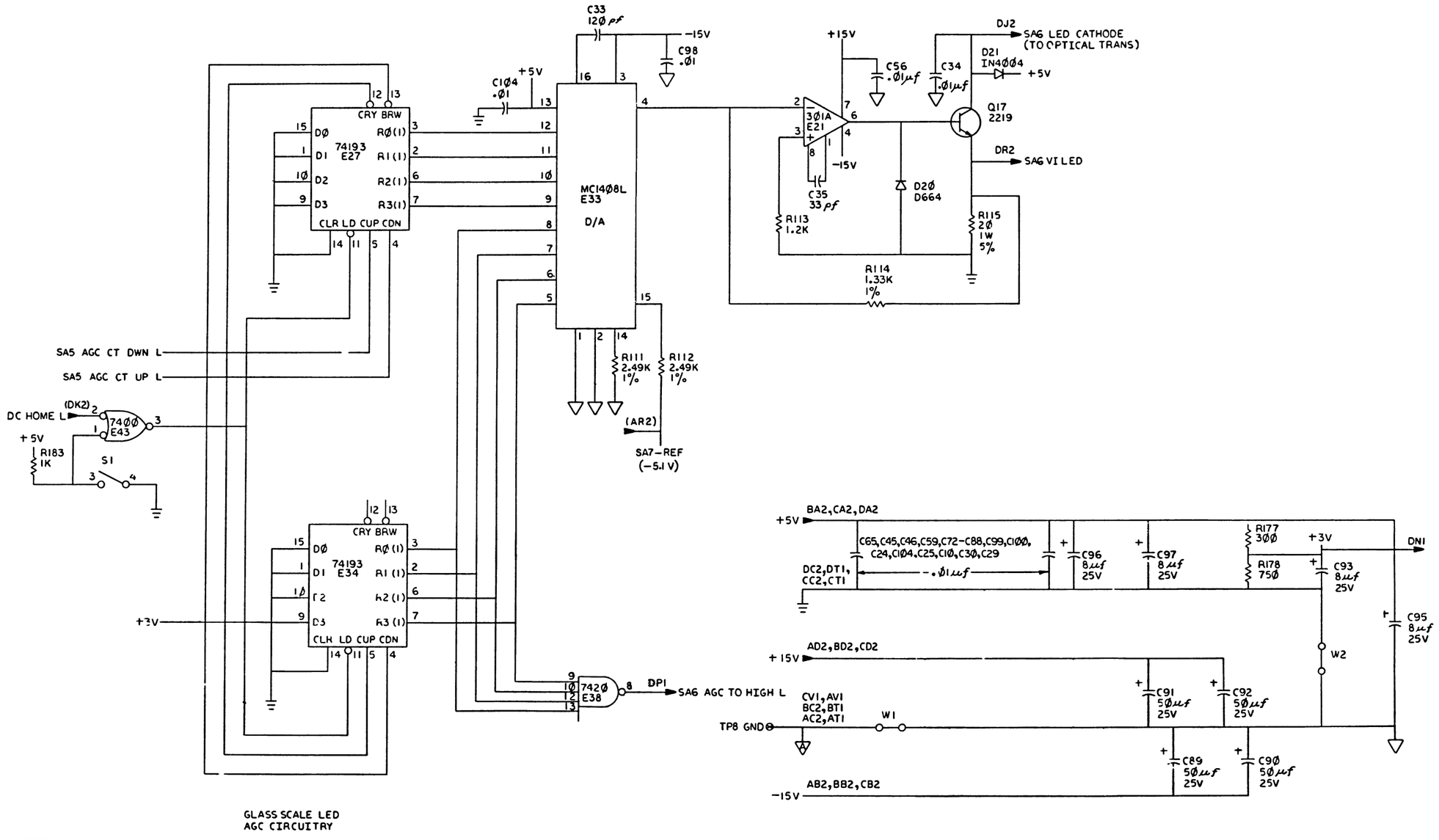


GLASS SCALE LED AGC CIRCUITRY

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| SERVO ANALOG (SA6) | D | CS | M7906-Ø-1 | H |
| SCALE — | SHEET 6 OF 7 | DIST. | | |

DLC FORM NO. DRD 138

M7906-Ø-1 H SIZE D CODE CS

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SA7 −REF (−5.1 V) (AR2) R119 59K, 1% R120 1.78K, 1%

SC4 EN LD/UNLD TACH L CU2 R116 47K R117 47K Q18 2N19 R118 34.8K 1% D22 D664 +15V 2Ø1A E16 C36 −15V 15ØPF C57 .Ø1µF D23 D664 R121 1ØØK 1% R122 1K 1% BH1

VELOCITY COMMAND LIMITER: C1Ø2 .Ø1µF C1Ø5 .Ø1µF −15V C43 12ØPF +5V MC14Ø8L E1Ø D/A

SC2 DAC ØH SC2 DAC 1H SC2 DAC 2H SC2 DAC 3H SC2 DAC 4H SC2 DAC 5H SC2 DAC 6H

BBI BC1 BE2 BF2 BH2 BF1 BJ1

AR2 SA7 −REF (−5.1 V) AS2

C4Ø .Ø1µF C41 6.8µF D26 AM5.121 −15V R139 47Ø ½W R138 2.49K 1% R137 2.49K 1% R14Ø 464K, 1% R141 12.1K, 1% R142 17.8K, 1% R143 49.9K, 1% R144 1ØK, 1% R145 12.1K, 1% R147 1Ø5K, 1% R146 12.1K, 1% D3Ø D664 D27 IN5282 D28 IN5282 D29 IN5282 R148 12.7K, 1%

D1 IN756A D31 D664 R2ØØ 4.7K +15V D2 IN756A D32 D664 R2Ø1 4.7K −15V

AL2 7414 E32 R123 1.5K Q19 2N39Ø6 R124 47Ø +5V R125 2.7K D24 D664 S8 R126 47K C37 4700PF R129 47Ø D25 D664

TP9 BL2 SA7 −INT V R131 1ØK, 1%

+5V R135 2.2K +5V R136 2.2K 7414 E32 XH5Ø12 E12 S6 S5 R149 1.1K, 1%

SC OFFSET(Ø)H CJ2

SA4 −VELOCITY (BM2) R127 332K, 1% 2Ø1A E11 R128 68K C38 15ØPF −15V

R13Ø 1ØK, 1% 2Ø1A E13 R132 4.7K −15V C6Ø .Ø1µF R134 1ØØK, 1%

R133 49.9K, 1% S7 E12 XH5Ø12

VELOCITY INTEGRATOR

BJ2 SA7 INT V

SC3 EN FWD SVO L BP1

R176 19.6K, 1% E12 XH5Ø12 R15Ø 2.2K +5V AM2 SC2 SHORT SEEK(1)L

+15V 2Ø1A E15 R151 4.7K C42 33PF −15V C61 .Ø1µF VC BA1 SA7 VELOCITY COMMAND (2ØØMV/IN/SEC)

VELOCITY PROFILE GENERATOR + OFFSET COMMAND GENERATOR

REVISIONS

| CHK | CHANGE NO | REV |
|---|---|---|

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| SERVO ANALOG (SA7) | D | CS | M79Ø6-Ø-1 | H |
| SCALE — SHEET 7 OF 7 | DIST | | | |

DEC FORM NO. DRD 138

AUTOMATED BY PRTLST.2E(3) — P A R T S  L I S T — SHEET A1 OF A3

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | | 5012848-00 | M7906 | 1 | |
| 2 | 2 | | 1000005-00 | 6.8 MMF 100V 5%200PPM MICA | 3 | C13,C18,C32 |
| 3 | 3 | | 1000009-00 | 33.0 MMF 100V 55200PPM MICA | 9 | C1-C3,C6,C7,C23,C35,C39,C42 |
| 4 | 4 | | 1000018-00 | 120.0 MMF 100V 5%200PPM MICA | 2 | C33,C43 |
| 5 | 5 | | 1000019-00 | 150.0 MMF 100V 5%200PPM MICA | 2 | C36,C38 |
| 6 | 6 | | 1000042-00 | 1000.0 MMF 100V 5%200PPM MICA | 1 | C31 |
| 7 | 7 | | 1000060-00 | 6800.0 MMF 200V 10% MYLR | 1 | C44 |
| 8 | 8 | | 1001610-01 | .01 MFD50/100V +80-20% DISC | 60 | C10,C12,C17,C24,C25,C29,C34,C30, |
| | | | | | CONT | C40,C45-C66,C69-C88,C98-C106 |
| 9 | 9 | | 1010978-36 | .1 MFD 50V 10% CER | 1 | C5 |
| 10 | 10 | | 1002424-00 | 1200.0 MMF 100V 5%200PPM MICA | 2 | C11,C22 |
| 11 | 11 | | 1002427-00 | 15.0 MMF 100V 5%200PPM MICA | 2 | C14,C19 |
| 12 | 12 | | 1001633-00 | *** THIS ITEM IS NOT USED *** | - | |
| 13 | 13 | | 1005306-00 | 6.8MFD 35V 10% S.TANT | 2 | C9,C41 |
| 14 | 14 | BLANK | | | 0 | |
| 15 | 15 | | 1009312-00 | .0047 MFD 100V 1% MYLR | 6 | C8,C15,C16,C20,C21,C37 |
| 16 | 16 | BLANK | | | 0 | |
| 17 | 17 | | 1012084-01 | 8 MFD 25V +75-10% AL EL | 4 | C93,C95-C97 |
| 18 | 18 | | 1001796-00 | 50 MFD 25V +75-10% AL EL | 4 | C89-C92 |
| 19 | 19 | | 1100114-00 | D 664 QS\75PCB PIV= 25V SP | 22 | D3,D4,D7-D18,D20,D22-D25,D30, |
| | | | | | CONT | D32,D33 |
| 20 | 20 | | 1105796-00 | 1N 4004 PIV=400 I= 1A D041 SP | 1 | D21 |
| 21 | 21 | | 1105873-00 | 4M5-1AZ1 VZ= 5.1 1% .400W | 2 | D26,D31 |
| 22 | 22 | | 1109991-00 | 1N 754A VZ= 6.8 5% .40W | 2 | D5,D6 |
| 23 | 23 | | 1113003-00 | IN 5282 PIV=55 I=500M D035 | 3 | D27-D29 |
| 24 | 24 | | 1300271-00 | *** THIS ITEM IS NOT USED *** | - | |
| 25 | 25 | | 1300488-00 | 12.0 K .25 W 5.0 % CC | 1 | R81 |
| 26 | 26 | | 1300315-00 | 470.0 .50 W 5.0 % CC | 2 | R139,R182 |
| 27 | 27 | | 1300316-00 | 470.0 .25 W 5.0 % CC | 10 | R77,R124,R152,R155,R158,R161, |
| | | | | | CONT | R164,R167,R170,R129 |

| REVISION HISTORY | | |
|---|---|---|
| ENG | ECO NUMBER | REV |
| C.L | M7906-ML004 | E |
| M.C | M7906-ML006 | F |
| MC | M7906-ML007 | H |

BASIC PART NO: M7906

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: S.KLOTZLE — DATE: 01-NOV-78

CHK'D: P.BOSSMAN — DATE: 01-NOV-78

DES.ENG: M.SIDMAN — DATE: 01-NOV-78

RESP.ENG.: M.SIDMAN — DATE: 01-NOV-78

MFG.ENG.: M.RAYMOND — DATE: 01-NOV-78

ASSEMBLY NUMBER: D-UA-M7906-0-0

TOP DOCUMENT NUMBER: #B-DD-M7906-0

| D | I | G | I | T | A | L |
|---|---|---|---|---|---|---|

TITLE: PARTS LIST

SERVO ANALOG

DOCUMENT NUMBER

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| K | PL | M7906-0-DBP | H |

FILE NAME: Z0477H.PLS

EDIT #: 12

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AUTOMATED BY PRTLST.2E(3) — P A R T S  L I S T — SHEET A2 OF A3

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|---|
| 28 | 28 | | 1300365-00 | 1.0 K .25 W 5.0 % CC | 2 | | R48,R183 |
| 29 | 29 | | 1303114-00 | 1.0 K .25 W 1.0 % RN55D-F10 | 9 | | R23,R24,R51-R53,R64-R66,R122 |
| 30 | 30 | | 1301320-00 | 1.20 K .25 W 5.0 % CC | 1 | | R113 |
| 31 | 31 | | 1300391-00 | 1.50 K .25 W 5.0 % CC | 9 | | R60-R63,R73-R76,R123 |
| 32 | 32 | | 1300411-00 | 2.0 K .25 W 1.0 % RN55D-F10 | 1 | | R125 |
| 33 | 33 | | 1300417-00 | 2.20 K .25 W 5.0 % CC | 14 | | R8-R11,R26-R30,R56,R69,R135, |
| | | | | | | CONT | R136,R150 |
| 34 | 34 | | 1300426-00 | 2.70 K .25 W 5.0 % CC | 8 | | R78,R153,R156,R159,R162,R165, |
| | | | | | | CONT | R168,R171 |
| 35 | 35 | | 1300447-00 | 4.70 K .25 W 5.0 % CC | 13 | | R5,R18,R34,R35,R43-R45,R98,R99, |
| | | | | | | CONT | R132,R151,R200,R201 |
| 36 | 36 | | 1300479-00 | 10.0 K .25 W 5.0 % CC | 5 | | R12,R42,R88,R92,R93 |
| 37 | 37 | | 1300525-00 | 59.0 K .25 W 1.0 % RN55D-F10 | 1 | | R119 |
| 38 | 38 | | 1300539-00 | 120.0 K .25 W 5.0 % CC | 1 | | R49 |
| 39 | 39 | | 1301401-00 | 750.0 .25 W 5.0 % CC | 1 | | R178 |
| 40 | 40 | | 1301775-00 | 820.0 .25 W 5.0 % CC | 5 | | R47,R83,R89,R104,R107 |
| 41 | 41 | | 1301808-00 | 22.0 K .25 W 5.0 % CC | 2 | | R109,R110 |
| 42 | 42 | | 1302177-00 | 47.0 K .25 W 5.0 % CC | 13 | | R46,R79,R108,R116,R117,R126, |
| | | | | | | CONT | R154,R157,R160,R163,R166,R169, |
| | | | | | | CONT | R172 |
| 43 | 43 | | 1312993-00 | 20.0 1.0 W 5.0 % CC | 1 | | R115 |
| 44 | 44 | | 1301327-00 | 68.0 K .25 W 5.0 % CC | 1 | | R128 |
| 45 | 45 | | 1302398-00 | 470.0 K .25 W 5.0 % CC | 3 | | R90,R91,R103 |
| 46 | 46 | | 1302612-00 | 1.78 K .25 W 1.0 % RN55D-F10 | 1 | | R120 |
| 47 | 47 | | 1302941-00 | 14.70 K .25 W 1.0 % RN55D-F10 | 1 | | R22 |
| 48 | 48 | | 1303043-00 | 464.0 K .25 W 1.0 % RN55D-F10 | 1 | | R140 |
| 49 | 49 | | 1303044-00 | 100.0 K .25 W 1.0 % RN55D-F10 | 5 | | R6,R7,R21,R121,R134 |
| 50 | 50 | | 1303156-00 | 34.80 K .25 W 1.0 % RN55D-F10 | 1 | | R118 |
| 51 | 51 | | 1303179-00 | 8.20 K .25 W 5.0 % CC | 1 | | R37 |
| 52 | 52 | | 1303312-00 | 10.0 K .25 W 1.0 % RN55D-F10 | 25 | | R1,R3,R13-R17,R40,R41,R50,R58, |
| | | | | | | CONT | R59,R71,R72,R80,R84-R87,R94,R95, |
| | | | | | | CONT | R130,R131,R144,R181 |
| 53 | 53 | | 1303313-00 | 12.10 K .25 W 1.0 % RN55D-F10 | 3 | | R141,R145,R146 |
| 54 | 54 | | 1304854-00 | 5.11 K .25 W 1.0 % RN55D-F10 | 1 | | R100 |
| 55 | 55 | | 1305108-00 | 1.47 K .25 W 1.0 % RN55D-F10 | 2 | | R55,R68 |
| 56 | 56 | | 1305128-00 | 5.62 K .25 W 1.0 % RN55D-F10 | 1 | | R25 |
| 57 | 57 | | 1305265-00 | 39.20 K .25 W 1.0 % RN55D-F10 | 2 | | R57,R70 |
| 58 | 58 | | 1305336-00 | 200.0 K .25 W 1.0 % RN55D-F10 | 2 | | R19,R20 |
| 59 | 59 | | 1305252-00 | 68.10 K .25 W 1.0 % RN55D-F10 | 1 | | R127 |
| 60 | 60 | | 1305422-00 | 137.0 K .25 W 1.0 % RN55D-F10 | 2 | | R33,R36 |
| 61 | 61 | | 1309143-09 | 5.0 K .75 W10.0 % POT | 1 | | R82 |
| 62 | 62 | | 1309143-10 | 10.0 K .75 W10.0 % POT | 1 | | R31 |
| 63 | 63 | | 1309417-00 | 27.40 K .25 W 1.0 % RN55D-F10 | 2 | | R54,R67 |
| 64 | 64 | | 1309419-00 | 19.60 K .25 W 1.0 % RN55D-F10 | 3 | | R176,R179,R180 |
| 65 | 65 | | 1310630-00 | 1.33 K .25 W 1.0 % RN55D-F10 | 1 | | R114 |
| 66 | 66 | | 1305427-00 | 590.0 K .25 W 1.0 % RN55D-F10 | 1 | | R32 |
| 67 | 67 | | 1312626-00 | 2.49 K .25 W 1.0 % RN55D-F10 | 4 | | R111,R112,R137,R139 |
| 68 | 68 | | 1312747-00 | 56.20 K .25 W 1.0 % RN55D-F10 | 2 | | R38,R39 |

| D | I | G | I | T | A | L | TITLE | SECTION | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | SERVO ANALOG | A OF A | K | PL | M7906-J-DBP | H |

AUTOMATED BY PRTLST.2E(3) P A R T S L I S T SHEET A3 OF A3

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 69 | 69 | | 1312987-00 | 10.50 K .25 W 1.0 % RN55D-F10 | 1 | R147 |
| 70 | 70 | | 1312988-00 | 49.90 K .25 W 1.0 % RN55D-F10 | 2 | R133,R143 |
| 71 | 71 | | 1312989-00 | 17.80 K .25 W 1.0 % RN55D-F10 | 1 | R142 |
| 72 | 72 | | 1312990-00 | 12.70 K .25 W 1.0 % RN55D 10 | 1 | R148 |
| 73 | 73 | | 1301425-00 | 300.0 .25 W 5.0 % CC | 1 | R177 |
| 74 | 74 | | 1304855-00 | 9.09 K .25 W 1.0 % RN55D-F10 | 2 | R2,R4 |
| 75 | 75 | | 1501881-00 | DEC2219 NPN 3WC SI 30100 | 2 | Q17,Q18 |
| 76 | 76 | | 1509525-00 | 2N 3906 PNP 310MW SI 40100 Y | 9 | Q1-Q8,Q19 |
| 77 | 77 | | 1511095-00 | 2N 5638 FET 310MW SIN CHNNL | 9 | Q9-Q16,Q20 |
| 78 | 78 | | 1302645-00 | 1.10 K .25 W 1.0 % RN55D-F10 | 1 | R149 |
| 79 | 79 | | 1905547-00 | 7474 FF-D DUAL,EDGE TRIGG | 2 | E36,E37 |
| 80 | 80 | | 1905576-00 | 7410 NAND GATE-TRIPLE 3IN | 1 | E46 |
| 81 | 81 | | 1905577-00 | 7420 NAND GATE-DUAL 4INPU | 1 | E38 |
| 82 | 82 | | 1905590-00 | DEC 7401 NAND GATE-QUAD 2IN,O | 1 | E35 |
| 83 | 83 | | 1910282-00 | 301AN OP AMP | 5 | E1-E4,E21 |
| 84 | 84 | | 1909686-00 | 7404 INVERTER GATE-HEX 1I | 1 | E30 |
| 85 | 85 | | 1910018-00 | DEC 74193 COUNTER,SYNCHR. UP/D | 2 | E27,E34 |
| 86 | 86 | | 1910155-00 | DEC 7408 AND GATE,POS.QUAD 2I | 1 | E43 |
| 87 | 87 | | 1910298-00 | 741 OP AMP GEN PURP. COM | 1 | E9 |
| 88 | 88 | | 1910436-00 | DEC 74123 ONE SHOT-DUAL,RETRIG | 2 | E39,E45 |
| 89 | 89 | | 1911143-00 | DEC 201A OP AMP | 10 | E6-E8,E11,E13-E17,E25 |
| 90 | 90 | | 1911324-00 | 7414 INVERTER,HEX 1IN SCH | 2 | E32,E44 |
| 91 | 91 | | 1911629-00 | 1408L8 DAC, 8BIT | 2 | E10,E33 |
| 92 | 92 | | 1911637-00 | 74132 NAND GATE-QUAD 2 IN | 2 | E31,E41 |
| 93 | 93 | | 1911706-00 | 5012 ANALOG SWITCH,4CHNL | 3 | E12,E19,E20 |
| 94 | 94 | | 1914140-00 | LM 311N VOLT CMPRTR | 5 | E22-E24,E26,E28 |
| 95 | 95 | USE UNDER Q17,Q18 | 9007200-00 | TRANSIPADS #10134 | 2 | |
| 96 | 96 | | 1210209-00 | SW,TOG,SPDT,.01A@6V,ON/ON,SUBMIN | 2 | S1,S2 |
| 97 | 97 | | 9000024-01 | EYELET, ROLLED FLANGE, .121 OD X | 8 | |
| 98 | 98 | | 9007791-00 | TERM PCB 2POS SOLDER,TURRET | 10 | TP1-TP10 |
| 99 | 99 | | 9009185-00 | JUMPER, WIRE, INSULATED, BLACK B | 2 | W1,W2 |
| 100 | 100 | | 1213113-01 | HANDLE,MODULE, | 1 | |
| 101 | 101 | | 9105740-55 | *** THIS ITEM IS NOT USED *** | - | |
| 102 | 102 | | 9107256-11 | *** THIS ITEM IS NOT USED *** | - | |
| 103 | 103 | | 9107295-10 | *** THIS ITEM IS NOT USED *** | - | |
| 104 | 104 | | 1103441-00 | 1N 756A VZ= 8.2 5% .40W P | 2 | D1,D2 |
| 105 | 105 | D-CS-M7906-0-1 | | CIRCUIT SCHEMATIC | REF | |
| 106 | 106 | D-UA-M7906-0-0 | | UNIT ASSEMBLY | REF | |
| 107 | 107 | B-DD-M7906-0-0 | | DRAWING DIRECTORY | REF | |
| 108 | 108 | D-MD-5012848-0-0 | | DRILL AND ETCH DRAWING | REF | |
| 109 | 109 | D-EC-5012848-0-0 | | ETCH CUT DRAWING | REF | |

110 NOTE: USED ON:OPTION/MODEL RK07
111 NOTE: I.C.SPARES-E5,E18,E29,E40,E42

| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | SERVO ANALOG | | K | PL | M7906-0-DBP | H |

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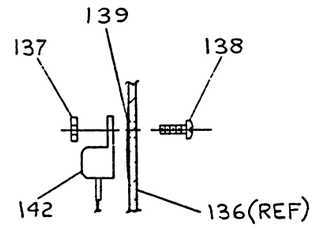
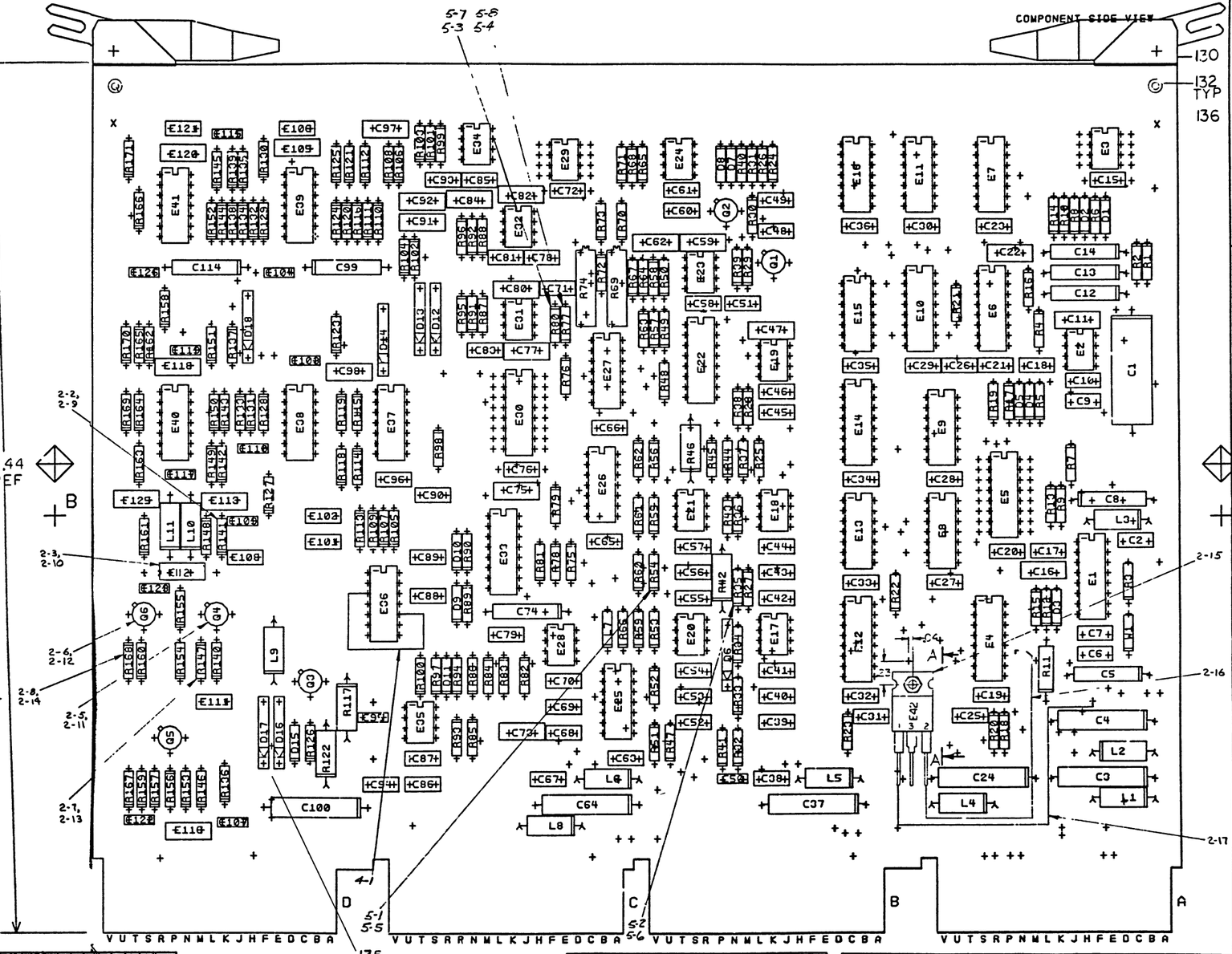



SECTION A-A
SCALE: NONE

REWORK INSTRUCTIONS
ECO # 2
ETCH CUTS SIDE 1:
2-1. TO RIGHT OF E9-11
COMPONENT DELETES SIDE 1:
2-2. R141 (P/N 1301424-00)
2-3. C112 (P/N 1000009)
2-4. C124 (P/N 1000009)
2-5. Q4 (P/N 1503051)
2-6. Q6 (P/N 1503051)
2-7. R197 (P/N 1305114)
2-8. R168 (P/N 1305114)
COMPONENT ADDS SIDE 1:
2-9. R141 (P/N 1303114)
2-10. C112 (P/N 1002427) AND RELOCATE AS SHOWN
2-11. Q4 (P/N 1519499)
2-12. Q6 (P/N 1519999)
2-13. R197 (P/N 1309856)
2-14. R168 (P/N 1309856)
2-15. DRILL HOLE .12 DIA (#31 DRILL BIT) INSTALL E42 (P/N 1912536) AS SHOWN. TACK SOLDER PIN 3 TO GROUND ETCH DIRECTLY BELOW LEAD. SOLDER WIRES TO LEADS 1 AND 2 AND ADD SHRINK TUBING (P/N 9107714) TO LEADS 1 AND 2. APPLY THERMAL COMPOUND BEFORE ATTACHING E42 TO BOARD (REFER TO SECTION A-A). NOTE: BE CAREFUL THAT NUT DOES NOT DAMAGE CASE OF E42 WHEN INSERTING.
WIRE ADDS SIDE 1:
2-16. FROM E42-2 TO ETCH RUNNING UNDER R11, TACK SOLDER TO ETCH.
2-17. FROM E42-1 TO PTH ABOVE C4
ECO #4
WIRE ADDS SIDE 1:
4-1 BETWEEN E36-3 AND E36-10

REWORK INSTRUCTIONS CONT ON PG4.




NOTES:
1. 8 HOLES .086 (+.003-.005) MAYNARD ONLY
2. ADD SLEEVING TO LEADS OF D14, D15, D16, D17, L18.

| CHK | CHANGE NO | REV |
|---|---|---|
| | REDRAWN | A |
| | M7908-001 | |
| | M7908-2 | B |
| | M7908-3 | C |
| | M7908-4 | D |
| | M7908-ML5 | E |
| | M7908-ML06 | F |

ETCH REV. 6-P1
P.C. DESIGN DATA BASE REV. B1

| SIGNATURES | DATE |
|---|---|
| DRN. ST | 4-6-77 |
| CHK'D. | 4-6-77 |
| ENG. M. SIDMAN | 7-28-77 |
| PROJ. ENG. M SIDMAN | 7-28-77 |
| PROD. | |
| SCALE 2/1 | |
| SHT. 1 OF 4 | |
| NEXT HIGHER ASSY. B-DD-M7908-0-0 | |

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TITLE TPD/PLO

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | UA | M7908-0-0 | F |

ML 1 MS# 260279

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+10 VOLT SUPPLY

TPD1 +15V1
R122 220 1/2W
R126 47
R117 56 1/2W
Q3 3904
L9
TPD1 +10V
D15 D672
D16 VZ=5.1V 1%
D17 VZ=5.1V 1%
R141 1K 1%
R148 619 1%
C109 .47µf 25V
3 MHZ TRIBIT FILTER
C108 .1µf 50V
R151 619 1%
R128 47
E38 CA3046
TPD1 TRIBIT SIG
L10 33µH 5%
R142 47
E40 CA3046
R150 1K 1%
TPD -4.8V
R118 1K 1%
TPD +10V
C107 .47µf 25V
R146 348 1%
R140 47
Q4 MPS6515
R147 4.64K 1%
SPI SVO PRE A
DJ2
R136 75 1%
R156 330
R155 120
C111 .05µf 25V
C112 15pf
C113 150pf
R149 68
C117 10µf 25V
R169 1K 1%
C103 .47µf 25V
R105 22K
C101 .01µf
+5V1
R89 1K
+15V1
D9 IN746A VZ=3.3V 5%
E36-3 SPARE CHANNEL OF 1414 AT E36
C88 .1µf 50V
DM2
DN2
SPI SVO PRE COM
C116 100pf
Q5 2N4859
R159 75 1%
R157 330
C123 10µf
R168 4.64K 1%
R167 348 1%
C122 .47µf 25V
R160 47
SPI SVO PRE B
DP2
Q6 MPS6515
R154 4.7
R161 619 1%
-15V1
C125 150pf
R114 1K 1%
C90 .01µf
R107 3K
R109 3K
R90 7.5K
-15V1
1414 E36
3.72µs
1.1µs
+5V1
R79 5.62K 1%
D11 D672
R153 100
C95 .47µf 25V
R100 1M
L11 33µH 5%
R163 47
E40 CA3046
R113 470
C102 .01µf
C75 510pf
CN2
TPD1 SVO PULS H
74123 E33
7400 E26
CH2
TPD1 SVO PULS L
+5V PULL UP L
TPD1 +10V
R97 2K .1%
R94 4K .1%
+15V1
C87 .01µf
TPD3 AGC INPUT
741 E35
R93 1.2K
-15V1
C86 .01µf
+15V1 IN
CD2
L6
C67 .01µf
C64 15µf 20V
TPD1 +15V1
R133 47
R143 619 1%
E38 CA3046
TPD1 +10V
-15V1 IN
CB2
L8
C94 .01µf
C100 15µf 20V
TPD1 -15V1
+5V1 IN
BA2
L5
C38 .01µf
C37 39µf 10V
TPD1 +5V1
+15V2
7805 E42
+5V3
D10 IN757A VZ=9.1V 5%
C89 .1µf 50V

"ON TRACK" TRIBIT SIGNAL
+1
-1
-2
A
B
3.72µs
SYNC
SYNC

| REVISIONS | | | |
|---|---|---|---|
| CHG | CHANGE NO. | REV. | |
| M7908-00001 | | A | 22 AUG 77 M.SIDMAN |
| M7908-00002 | | B | 1 JUNE 78 I.HUNT |
| M7908-00003 | | C | STEVE A. ME 4 APR 78 I.HUNT |
| M7908-00004 | | D | M CASTELLANOS |
| M7908-ML005 | | E | M.CASTELLANOS |
| M7908-ML006 | | F | M. CASTELLANOS |

| | | |
|---|---|---|
| DRN | | 7/1/77 |
| CHK'D | | 7/3/77 |
| ENG. | | |
| PROJ. ENG. | | 9/3/77 |
| PROD. | | 9/3/77 |
| NEXT HIGHER ASSY. | B-DD-M7908-0 | |
| SCALE | | |
| SHEET | 1 OF 4 | |

FIRST USED ON RK07

digital

TITLE: TFD/PLO

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | CS | M7908-0-1 | F |

DIST.

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SC2 HIGH HYS L
BT2
74Ø5 E27
TPD2 COURSE TRK L
+5V1
R48 2.2K
XH5Ø12 E22
R37 9.Ø9K 1%
R28 19.6K 1%
R25 19.6K 1%
+15V1
C45 .Ø1µf
2C1A E19
R38 1ØK
C47 33pf
C46 .Ø1µf
-15V1
R55 1ØØK
C57 .Ø1µf
311 E21
R61 1.8K .1%
R56 4.99K 1%
R62 2.49K 1%
C56 .Ø1µf
R53 56Ø
+5V1
C55 .Ø1µf
BV1
TPD2 NEG TE L
TPD2 COARSE TRK L
74132 E25
BV2
TPD2 COARSE TRK H (± 1/4 TRK)
R65 1ØK 1%
C6Ø .Ø1µf
741 E24
R71 4.7K
C61 .Ø1µf
D8 D672
R4Ø 1ØK
R31 3.3K
C48 .1µf 50V
R3Ø 1ØK
Q1 2N39Ø4
R29 1ØK
R68 1ØK 1%
BU1
SA2 -VEL
D7 D672
R26 22K
C49 .22µf 50V
R24 1ØK
Q2 2N39Ø4
R57 1ØØK 1%
R39 1ØK
TPD2 -V REF
TPD1 -15V1
R42 47Ø 1/2W
D6 VZ=5.1V 1%
C5Ø .47µf 25V
TPD1 +1ØV
R45 4.99K 1%
R43 2.49K 1%
R36 12ØK
C44 .Ø1µf
311 E18
R46 4.42K 1%
R44 1K 1%
R35 14.7K 1%
C43 .Ø1µf
R27 56Ø
C42 .Ø1µf
CJ2
TPD2 POS TE L
+5V1
C38,C63,C65,C76,C83, C76,C79,C96
.Ø1µf
GND
+5V2
C19,C20,C21,C23,C27,C28, C29,C30,C31,C33,C34,C35, C36
.Ø1µf
XH5Ø12 E22
R49 5.62K 1%
C62 47Ø pf 5%
R5Ø 1ØØK 1%
R67 82.5K 1%
R64 4K 1%
R58 1ØØK 1%
+15V1
C58 .Ø1µf
2C1A E23
R63 47K
C59 33pf
-15V1
C51 .Ø1µf
TPD3 TRK ERROR A
ADAPTIVE FILTER
R41 3ØK
C41 .Ø1µf
R34 1K 1%
R32 91Ø
311 E17
C4Ø .Ø1µf
R33 56Ø
C39 .Ø1µf
R52 33.2K 1%
C54 .Ø1µf
R6Ø 91Ø
311 E2Ø
R54 6.98K 1%
R59 1K 1%
C53 .Ø1µf
R47 56Ø
C52 .Ø1µf
BM2
TPD2 (A-B)
COARSE TRACK AND FINE TRACK COMPARATORS
74132 E25
+5V PULL UP L
R81 22K
R78 4.7K
C74 .15µf 35V
74123 E33 .8MS Ø
L7 1ØØµh.
74ØØ E26
R75 1.5K
CF2
TPD2 FINE TRK DLD L
R66 56Ø
BU2
TPD2 FINE TRK H
CA1
TPD2 FINE TRK L (± 1/2Ø TRK)
BOUNCE ELIMINATOR

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| TPD/PLO | D | CS | M7908-Ø-1 | F |
| SCALE | SHEET 2 OF 4 | DIST. | | |

DEC FORM NO. DRD 138

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TPD4 B PK DET L — CP2 — 74Ø5 E37

TPD1 +1ØV

TPD1 TRIBIT SIG — C119 .47µf 25V — R165 47

R166 2.61K 1%
R164 5.11K 1%
R139 18Ø
C121 .Ø1µf
R171 1ØK 1%
R135 4.99K 1%
R17Ø 47
R138 1Ø
R152 47
D18 D777
CA3Ø46 E4Ø
CA3Ø46 E41
CA3Ø46 E41
CA3Ø46 E41

R162 1.ØK 1%
C126 .47µf 25V
C118 1ØØ pf
C114 47ØØ pf 1%
C12Ø 1ØØ pf
R158 2.61K 1%
R137 47
R134 68.1K 1%
R144 5.11K 1%
R145 47
TPD -4.8V
C115 .47µf 25V
D14 VZ=5.1V 1%
D12 VZ=5.1V 1%
-15V1

C1Ø4 .47µf 25V
C98 1ØØ pf
R123 2.61K 1%
R115 47
R12Ø 68.1K 1%
C99 47ØØ pf 1%
R124 5.11K 1%
C1Ø5 1ØØ pf
R125 47

CA3Ø46 E39
CA3Ø46 E38
CA3Ø46 E39
CA3Ø46 E39

C11Ø .47µf 25V
R131 47
R116 1Ø
R129 47
R111 47
D13 D777
R132 1.ØK 1%
R13Ø 2.61K 1%
R119 5.11K 1%
R112 18Ø
R121 1ØK 1%
C1Ø6 .Ø1µf

TPD1 +1ØV
TPD4 A PK DET(Ø)H — CR2 — 74Ø5 E37

PEAK DETECTORS

CV2 → TPD3 B PK

R1Ø4 1ØK
R1Ø3 (OPTIONAL)
C97 47Ø pf
R1Ø1 49.9K 1%
-15V1
R82 22ØK
+15V1
C7Ø .Ø1µf
R83 6.8K
R84 2K
R86 1.5K
311 E28
CS2 → TPD3 SVO SIG PRES H
R51 82Ø
C69 .Ø1µf
+5V1
C85 .Ø1µf
R1Ø6 1ØK .1%
R1Ø8 1ØK .1%
741 E34
R85 22Ø
CT2 → TPD3 (A+B)
TPD3 AGC INPUT
R99 3.3K
C93 .Ø1µf

TPD1 +1ØV
R95 1ØK .1%
R77 30.1K 1%
R72 133K 1%
RC9 1 MEG 2Ø% ZERO ADJUST (NOT FIELD ADJUSTABLE)
R7Ø 68.1K 1%
TPD1 -V REF
C91 12ØØ pf 5%
C82 6.8 pf
C77 56 pf
R88 1ØK .1%
R8Ø 51.1K 1%
R74 1ØK 2Ø% GAIN ADJUST (NOT FIELD ADJUSTABLE)
R73 1.47K 1%
C92 12ØØ pf 5%
+15V1
C78 .Ø1µf
C71 .Ø1µf
TPD3 TRK ERROR A
R92 1ØK .1%
R87 1ØK .1%
2Ø1A E32
2Ø1A E31
R76 2ØØ
CE2 → TPD3 TRK ERROR (6-1ØV P-P)
R96 4.7K
C81 .Ø1µf
R91 3.9K
C8Ø 33 pf
C83 .Ø1µf
C73 12Ø pf
C84 15Ø pf
R11Ø 4.99K 1%
R1Ø2 1ØK
DU2 → TPD3 A PK

C96 .Ø1µf
+5V1
R98 1K
74Ø5 E37
SPARE

REVISIONS
CHK | CHANGE NO. | REV.

TITLE: TPD/PLO
SIZE D | CODE CS | NUMBER M79Ø8-Ø-1 | REV. F
SCALE | SHEET 3 OF 4 | DIST.

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TPD1 SVO PULSE L AU2
+5V2
TPD4 PLO ERR L
+3V
TPD1 SVO PULSE H (269 KHZ) AM2
+5V2
+3V
DOWN H
TPD4 SVO CLK/2 L (269 KHZ)
+5V2
+3V
TPD4 SVO CLK/2 (1) H
+5V2
+3V
SPARE
UP L
UP H
TPD1 SVO PULSE L AU2
+15V2
-15V2
+15V2
+5V3
-15V2
+5V2
+3V
TPD4 SVO CLK H
+3V
BL2 SC3 LD HDS (1) L
BN2 SC4 BET LIM (1) H
AT2 TPD3 SVO SIG PRES H
+5V2
+3V
AF2 TPD4 WRITE CLK H (8.6 MHz)
AC1 TP
BF2 TPD4 SVO CLK/2 (1) H
AV2 TPD4 SVO CLK/2 L
AAI TPD4 B PK DET L
ABI TPD4 A PK DET (Ø) H
AFI TPD4 SVO CLK L
AN2 TPD4 SVO CLK H
AA2
AD2
AB2
+5V2
+15V2
-15V2
BR2 TPD4 SVO PRES DEL H
BP2 TPD4 SVO PRES DEL L
BS2 TPD4 SET SVO ERR L
AL2 TPD4 PLO ERR L

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| TPD/PLO | D | CS | M7908-Ø-1 | F |
| SCALE | SHEET 4 OF 4 | DIST. | | |

DEC FORM NO. DRD 138

AUTOMATED BY PRTLST.1D(11) — P A R T S  L I S T — SHEET A1 OF A4

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-M7909-0-1 | | CIRCUIT SCHEMATIC | REF | |
| 2 | 2 | D-UA-M7908-0-0 | | UNIT ASSEMBLY | REF | |
| 3 | 3 | B-DD-M7908-0-0 | | DWG DIRECTORY | REF | |
| 4 | 4 | D-MD-5012933-0-0 | | DRILL & ETCH DWG | REF | |
| 5 | 5 | | 1000006-00 | 10.0 MMF 100V 5%200PPM MICA | 1 | C32 |
| 6 | 6 | | 1000009-00 | 33.0 MMF 100V 55200PPM MICA | 4 | C11,C47,C59,C80 |
| 7 | 7 | | 1000011-00 | 47.0 MMF 100V 5%200PPM MICA | 1 | C22 |
| 8 | 8 | | 1000012-00 | 56.0 MMF 100V 5%200PPM MICA | 1 | C77 |
| 9 | 9 | | 1000016-00 | 100.0 MMF 100V 5%200PPM MICA | 5 | C98,C105,C116,C118,C120 |
| 10 | 10 | | 1000019-00 | 150.0 MMF 100V 5%200PPM MICA | 3 | C84,C113,C125 |
| 11 | 11 | | 1000024-00 | 470.0 MMF 100V 5%200PPM MICA | 2 | C62,C97 |
| 12 | 12 | | 1000037-00 | .22 MFD 100V 10% MYLR | 1 | C1 |
| 13 | 13 | | 1000076-00 | 39 MFD 10V 10% S.TANT | 1 | C37 |
| 14 | 14 | | 1001610-01 | .01 MFD50/100V +80-20% DISC | 60 | C9,C10,C17,C19,C20,C21,C23,C25,<br>CONT C27-C31,C33-C36,C38-C46,C51-C58,<br>CONT C60,C61,C63,C65-C71,C76,C78,C79,<br>CONT C81,C83,C85-C87,C90,C93,C94,C96,<br>CONT C101,C102,C106,C121 |
| 15 | 15 | | 1001739-00 | 27.0 MMF 100V 5%200PPM MICA | 1 | C16 |
| 16 | 16 | | 1001774-00 | .05 MFD 25V 10% Y5U DISC | 1 | C111 |
| 17 | 17 | | 1000005-00 | 6.8 MMF 100V 5%200PPM MICA | 1 | C82 |
| 18 | 18 | | 1002424-00 | 1200.0 MMF 100V 5%200PPM MICA | 2 | C91,C92 |
| 19 | 19 | | 1002476-00 | 510.0 MMF 100V 5%200PPM MICA | 1 | C75 |
| 20 | 20 | | 1002667-00 | 10 MFD 50V 10% S.TANT | 2 | C4,C24 |
| 21 | 21 | | 1004812-00 | 15 MFD 20V 10% S.TANT | 2 | C64,C100 |
| 22 | 22 | | 1004813-00 | 10 MFD 20V 10% S.TANT | 1 | C3 |
| 23 | 23 | | 1005306-00 | 6.8MFD 35V 10% S.TANT | 1 | C5 |
| 24 | 24 | | 1009312-00 | .0047 MFD 100V 1% MYLR | 3 | C12,C99,C114 |
| 25 | 25 | | 1009957-00 | .0022 MFD 100V 10% MYLR | 3 | C8,C13,C14 |
| 26 | 26 | | 1010279-00 | .47 MFD 25V 20% CER | 11 | C50,C95,C103,C104,C107,C109, |

| REVISION HISTORY | | |
|---|---|---|
| ENG | ECO NUMBER | REV |
| D.R | 00003 | C |
| R.R | 00004 | D |
| M.C | M7908-ML005 | E |
| MC | ML006 | F |

BASIC PART NO: M7908

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: S MARLOW — DATE: 28-MAR-78

CHK'D: P BOSSMAN — DATE: 28-MAR-78

DES.ENG: M SIDMAN — DATE: 28-MAR-78

RESP.ENG.: M SIDMAN — DATE: 28-MAR-78

MFG.ENG.: M SIDMAN — DATE: 28-MAR-78

ASSEMBLY NUMBER: D-UA-M7908-0-0

TOP DOCUMENT NUMBER: RK07

| D | I | G | I | T | A | L |
|---|---|---|---|---|---|---|

TITLE: PARTS LIST

TPD/PLO

DOCUMENT NUMBER

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| K | PL | M7908-0-DBP | F |

FILE NAME: Z1560F.PLS

EDIT #: 11

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| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| | | | | | | CONT C110,C115,C119,C122,C126 |
| 27 | 27 | | 1010978-36 | .1 MFD 50V 10% CER | 9 | C2,C6,C7,C18,C26,C48,C88,C89, |
| | | | | | | CONT C108 |
| 28 | 28 | | 1011895-00 | .15 MFD 35V 10% S.TANT | 1 | C74 |
| 29 | 29 | | 1100114-00 | D 664 QS\75PCB PIV= 25V SP | 4 | D1,D2,D4,D5 |
| 30 | 30 | | 1103041-00 | DEC 777 QS=12PCB PIV= 8VS | 2 | D13,D18 |
| 31 | 31 | | 1104860-00 | 1N 746A VZ= 3.3 5% | 1 | D9 |
| 32 | 32 | | 1105275-00 | D 672 TR= 15NS PIV= 60V SI | 4 | D7,D8,D11,D15 |
| 33 | 33 | | 1105873-00 | 4M5-1AZ1 VZ= 5.1 1% .400W | 6 | D3,D6,D12,D14,D16,D17 |
| 34 | 34 | | 1109990-00 | 1N 757A VZ= 9.1 5% .40W P | 1 | D10 |
| 35 | 35 | | 1300202-00 | 47.0 .25 W 5.0 % CC | 17 | R111,R115,R125,R126,R128,R129, |
| | | | | | | CONT R131,R133,R137,R140,R142,R145, |
| | | | | | | CONT R152,R160,R163,R165,R170 |
| 36 | 36 | | 1300219-00 | 68.0 .25 W 5.0 % CC | 1 | R149 |
| 37 | 37 | | 1300229-00 | 100.0 .25 W 5.0 % CC | 1 | R153 |
| 38 | 38 | | 1300247-00 | 120.0 .25 W 5.0 % CC | 1 | R155 |
| 39 | 39 | | 1300271-00 | 220.0 .25 W 5.0 % CC | 2 | R18,R85 |
| 40 | 40 | | 1300274-00 | 220.0 .50 W 5.0 % CC | 1 | R122 |
| 41 | 41 | | 1300295-00 | 330.0 .25 W 5.0 % CC | 3 | R20,R156,R157 |
| 42 | 42 | | 1300308-00 | 390.0 .50 W 5.0 % CC | 1 | R11 |
| 43 | 43 | | 1300315-00 | 470.0 .50 W 5.0 % CC | 1 | R42 |
| 44 | 44 | | 1300316-00 | 470.0 .25 W 5.0 % CC | 1 | R113 |
| 45 | 45 | | 1300365-00 | 1.0 K .25 W 5.0 % CC | 3 | R3,R89,R98 |
| 46 | 46 | | 1300391-00 | 1.50 K .25 W 5.0 % CC | 2 | R75,R86 |
| 47 | 47 | | 1300432-00 | 3.0 K .25 W 5.0 % CC | 2 | R107,R109 |
| 48 | 48 | | 1300439-00 | 3.30 K .25 W 5.0 % CC | 4 | R6,R8,R31,R99 |
| 49 | 49 | | 1300444-00 | 3.9J K .25 W 5.0 % CC | 1 | R91 |
| 50 | 50 | | 1300447-00 | 4.70 K .25 W 5.0 % CC | 3 | R71,R78,R96 |
| 51 | 51 | | 1300479-00 | 10.0 K .25 W 5.0 % CC | 9 | R9,R24,R29,R30,R38-R40,R102,R104 |
| 52 | 52 | | 1300539-00 | 120.0 K .25 W 5.0 % CC | 1 | R36 |
| 53 | 53 | | 1305420-00 | 33.20 K .25 W 1.0 % RN55D-F10 | 1 | R52 |
| 54 | 54 | | 1301317-00 | 10.0 .25 W 5.0 % CC | 2 | R116,R138 |
| 55 | 55 | | 1301320-00 | 1.20 K .25 W 5.0 % CC | 1 | R93 |
| 56 | 56 | | 1301322-00 | 180.0 .25 W 5.0 % CC | 2 | R112,R139 |
| 57 | 57 | | 1301422-00 | 7.50 K .25 W 5.0 % CC | 1 | R90 |
| 58 | 58 | | 1301423-00 | 6.80 K .25 W 5.0 % CC | 1 | R83 |
| 59 | 59 | | 1002427-00 | 15.0 MMF 100V 5%200PPM MICA | 1 | C112 |
| 60 | 60 | | 1301775-00 | 820.0 .25 W 5.0 % CC | 1 | R51 |
| 61 | 61 | | 1305127-00 | 4.0 K .25 W 1.0 % RN55D-F10 | 1 | R64 |
| 62 | 62 | | 1301808-00 | 22.0 K .25 W 5.0 % CC | 7 | R16,R21-R23,R26,R81,R105 |
| 63 | 63 | | 1301890-00 | 560.0 .25 W 5.0 % CC | 5 | R27,R33,R47,R53,R66 |
| 64 | 64 | | 1302092-00 | 220.0 K .25 W 5.0 % CC | 1 | R82 |
| 65 | 65 | | 1302177-00 | 47.0 K .25 W 5.0 % CC | 1 | R63 |
| 66 | 66 | | 1302388-00 | 2.0 K .25 W 5.0 % CC | 1 | R84 |
| 67 | 67 | | 1302394-00 | 30.0 K .25 W 5.0 % CC | 1 | R41 |
| 68 | 68 | | 1302466-00 | 100.0 K .25 W 5.0 % CC | 1 | R55 |
| 69 | 69 | | 1305354-00 | 4.0 K .25 W .10% RN55C-B 5 | 1 | R94 |
| 70 | 70 | | 1302859-00 | 5.76 K .25 W 1.0 % RN55D-F10 | 1 | R13 |

| D | I | G | I | T | A | L | TITLE | SECTION A OF A |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | TPD/PL0 | |

| SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|
| K | PL | M7908-0-D8P | F |

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 71 | 71 | | 1311522-00 | 200.0 .25 W 5.0 % CC | 1 | R76 |
| 72 | 72 | | 1303044-00 | 100.0 K .25 W 1.0 % RN55D-F10 | 3 | R50,R57,R58 |
| 73 | 73 | | 1300417-00 | 2.20 K .25 W 5.0 % CC | 1 | R48 |
| 74 | 74 | | 1312626-00 | 2.49 K .25 W 1.0 % RN55D-F10 | 2 | R43,R62 |
| 75 | 75 | | 1303045-00 | 3.16 K .25 W 1.0 % RN55D-F10 | 1 | R7 |
| 76 | 76 | | 1303064-00 | 75.0 .25 W 1.0 % RN55D-F10 | 2 | R136,R159 |
| 77 | 77 | | 1303114-00 | 1.0 K .25 W 1.0 % RN55D-F10 | 14 | R1,R4,R5,R12,R34,R44,R59,R114, |
| | | | | | CONT | R118,R132,R150,R162,R169,R141 |
| 78 | 78 | | 1303303-00 | 2.61 K .25 W 1.0 % RN55D-F10 | 4 | R123,R130,R158,R166 |
| 79 | 79 | | 1303311-00 | *** THIS ITEM IS NOT USED *** | - | |
| 80 | 80 | | 1303312-00 | 10.0 K .25 W 1.0 % RN55D-F10 | 4 | R65,R68,R121,R171 |
| 81 | 81 | | 1304833-00 | 1.96 K .25 W 1.0 % RN55D-F10 | 1 | R19 |
| 82 | 82 | | 1304854-00 | 5.11 K .25 W 1.0 % RN55D-F10 | 4 | R119,R124,R144,R164 |
| 83 | 83 | | 1304855-00 | 9.09 K .25 W 1.0 % RN55D-F10 | 1 | R37 |
| 84 | 84 | | 1304858-00 | 348.0 .25 W 1.0 % RN55D-F10 | 2 | R146,R167 |
| 85 | 85 | | 1305108-00 | 1.47 K .25 W 1.0 % RN55D-F10 | 1 | R73 |
| 86 | 86 | | 1304856-00 | 4.64 K .25 W 1.0 % RN55D-F10 | 2 | R147,R168 |
| 87 | 87 | | 1305126-00 | 619.0 .25 W 1.0 % RN55D-F10 | 4 | R143,R148,R151,R161 |
| 88 | 88 | | 1305128-00 | 5.62 K .25 W 1.0 % RN55D-F10 | 2 | R49,R79 |
| 89 | 89 | | 1305130-00 | 133.0 K .25 W 1.0 % RN55D-F10 | 1 | R72 |
| 90 | 90 | | 1305252-00 | 68.10 K .25 W 1.0 % RN55D-F10 | 5 | R10,R14,R70,R120,R134 |
| 91 | 91 | | 1305324-00 | 4.99 K .25 W 1.0 % RN55D-F10 | 4 | R45,R56,R110,R135 |
| 92 | 92 | | 1305353-00 | 2.0 K .25 W .10% RN55C-B 5 | 1 | R97 |
| 93 | 93 | | 1305374-00 | 910.0 .25 W 5.0 % CC | 2 | R32,R60 |
| 94 | 94 | | 1305431-00 | 10.0 K .25 W .10% RN55E-B 2 | 6 | R87,R88,R92,R95,R106,R108 |
| 95 | 95 | | 1309143-18 | 1.0 M .75 W20.0 % POT | 1 | R69 |
| 96 | 96 | | 1309143-10 | 10.0 K .75 W10.0 % POT | 1 | R74 |
| 97 | 97 | | 1309295-00 | 1.80 K .25 W .10% RN55E-B 2 | 1 | R61 |
| 98 | 98 | | 1309314-03 | 4.42 K .50 W 1.0 % RN60D-F10 | 1 | R46 |
| 99 | 99 | | 1309413-00 | 3.83 K .25 W 1.0 % RN55D-F10 | 1 | R15 |
| 100 | 100 | | 1309419-00 | 19.60 K .25 W 1.0 % RN55D-F10 | 2 | R25,R28 |
| 101 | 101 | | 1309420-00 | 8.25 K .25 W 1.0 % RN55D-F10 | 1 | R17 |
| 102 | 102 | | 1309595-00 | 1.0 M .25 W 5.0 % CC | 2 | R2,R100 |
| 103 | 103 | | 1309955-00 | 56.0 .50 W 5.0 % CC | 1 | R117 |
| 104 | 104 | | 1310636-00 | 82.50 K .25 W 1.0 % RN55D-F10 | 1 | R67 |
| 105 | 105 | | 1312988-00 | 49.90 K .25 W 1.0 % RN55D-F10 | 1 | R101 |
| 106 | 106 | | 1000018-00 | 120.0 MMF 100V 5%200PPM MICA | 1 | C73 |
| 107 | 107 | | 1514999-00 | MPS6515 NPN 350MW SI 25 250 | 2 | Q4,Q6 |
| 108 | 108 | | 1509524-00 | 2N 3904 NPN 310MW SI 40 40 M | 3 | Q1-Q3 |
| 109 | 109 | | 1509900-00 | 2N 4859 FET 360MW SIN CHNNL | 1 | Q5 |
| 110 | 110 | | 1601759-00 | 33 UH 5% 300MA | 2 | L10,L11 |
| 111 | 111 | | 1610662-00 | 100.0 UH 10% 165MA #DD1 00 | 1 | L7 |
| 112 | 112 | | 1611257-01 | CHOKE(CERAMIC BEAD)AXIAL LEAD,ON | 8 | L1-L6,L8,L9 |
| 113 | 113 | | 1010866-02 | 10 MFD 25V +50-20% S.TANT | 2 | C117,C123 |
| 114 | 114 | | 1905547-00 | 7474 FF-D DUAL,EDGE TRIGG | 1 | E8 |
| 115 | 115 | | 1905575-00 | 7400 NAND GATE-QUAD 2IN | 4 | E11,E15,E16,E26 |
| 116 | 116 | | 1905576-00 | 7410 NAND GATE-TRIPLE 3IN | 1 | E13 |
| 117 | 117 | | 1909686-00 | 7404 INVERTER GATE-HEX 1I | 1 | E9 |

| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TPD/PL0 | | K | PL | M7908-0-DBP | F |

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 118 | 118 | | 1909930-00 | 7405 INVERTER GATE-HEX 1I | 2 | E27,E37 |
| 119 | 119 | | 1910298-00 | 741 OP AMP GEN PURP. COM | 3 | E24,E34,E35 |
| 120 | 120 | | 1910337-00 | DEC 1414L VOLT.COMPARATOR,DUAL | 1 | E36 |
| 121 | 121 | | 1910436-00 | DEC 74123 ONE SHOT-DUAL,RETRIG | 3 | E6,E12,E33 |
| 122 | 122 | | 1910544-00 | 74S74 FF-D DUAL,EDGE TRIGG | 1 | E7 |
| 123 | 123 | | 1910650-00 | 74161 COUNTER,SYNCHR. UP | 3 | E4,E10,E14 |
| 124 | 124 | | 1911143-00 | DEC 201A OP AMP | 5 | E2,E19,E23,E31,E32 |
| 125 | 125 | | 1911637-00 | 74132 NAND GATE-QUAD 2 IN | 1 | E25 |
| 126 | 126 | | 1911706-00 | 5012 ANALOG SWITCH,4CHNL | 1 | E22 |
| 127 | 127 | | 1911911-00 | DEC 74S124 OSCILLATOR,DUAL VOLT | 1 | E1 |
| 128 | 128 | | 1913017-00 | 3046 XSISTOR ARRAY,3 ISOL | 4 | E38-E41 |
| 129 | 129 | | 1914140-00 | LM 311N VOLT CMPRTR | 5 | E17,E18,E20,E21,E28 |
| 130 | 130 | | 1213113-01 | HANDLE,MODULE, | 1 | |
| 131 | 131 | | 1305890-00 | 4.70 .25 W 5.0 % CC | 1 | R154 |
| 132 | 132 | | 9000024-01 | EYELET,ROLL FLANGE .1210DX .192 | 8 | |
| 133 | 133 | | 9009185-00 | JUMPER, WIRE, INSULATED, BLACK B | 1 | W1 |
| 134 | 134 | | 1010978-40 | .22 MFD 50V 10% CER | 1 | C49 |
| 135 | 135 | | 9107256-11 | TUBING,THIN WALL,.027ID UL | A/R | |
| 136 | 136 | | 5012933-00 | TPD/PLO | 1 | |
| 137 | 137 | | 9006557-00 | NUT,KEP 4-40X 1/4 AF | 1 | |
| 138 | 138 | | 9008301-01 | SCREW,PAN,PHIL 4-40X 1/4 SS | 1 | |
| 139 | 139 | | 9008268-00 | COMPOUND, THERMAL JOINT | A/R | |
| 140 | 140 | | 9107714-00 | TUBING,SHRINK 3/32DIA EXP UL | A/R | |
| 141 | 141 | | 9107776-66 | WIRE(WRAP)22AWG,IPVC UL1429 BL | A/R | |
| 142 | 142 | SEE NOTE 148 | 1912536-00 | DEC 7805 VOLT REG,FIX +5V | 1 | E42 |
| 143 | 143 | | 9105740-55 | WIRE(WRAP)30AWG UL1423 | A/R | |
| 144 | 144 | | 1303305-00 | 6.98 K .25 W 1.0 % RN55D-F10 | 1 | R54 |
| 145 | 145 | | 1302941-00 | 14.70 K .25 W 1.0 % RN55D-F10 | 1 | R35 |
| 146 | 146 | | 1313476-00 | 51.10 K .25 W 1.0 % RN55D-F10 | 1 | R80 |
| 147 | 147 | | 1311594-00 | 30.10 K .25 W 1.0 % RN55D-F10 | 1 | R77 |

148 NOTE: P/N 19-12536-01, IC 7805 IS AN ACCEPTABLE ALTERNATE PART.

| D | I | G | I | T | A | L | TITLE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TPD/PLO | | K | PL | M7908-0-DBP | F |

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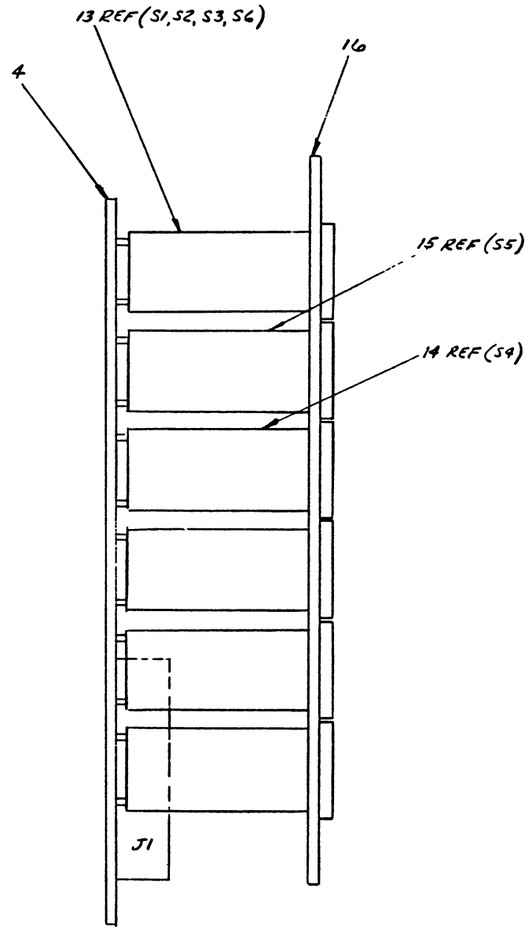
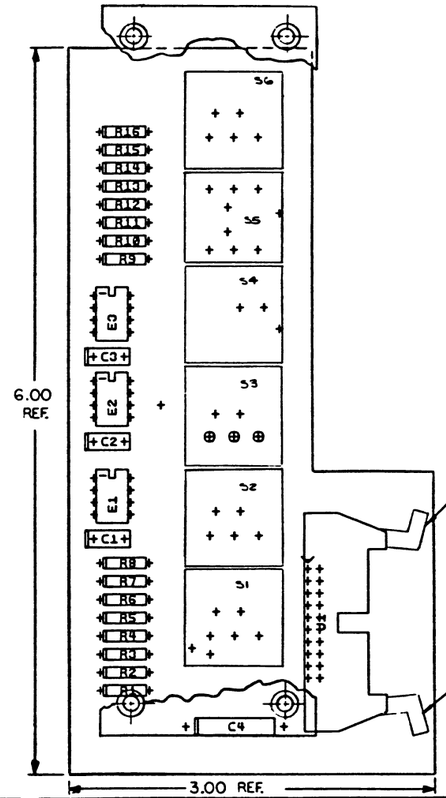
COMPONENT SIDE VIEW




NOTES:

| CHK | CHANGE NO | REV |
|---|---|---|
| | | |

ETCH REV. D
P.C. DESIGN DATA BASE REV. D

| SIGNATURES | DATE |
|---|---|
| DRN. FGARCIALO | 4-23-76 |
| CHK'D. C Cuddy | 4-23-76 |
| ENG. M ... anon | 5/6/76 |
| PROJ.ENG. M/C ... | 5/6/76 |
| PROD. ... | 5/6/76 |
| SCALE 2/1 | |
| SHT. 1 OF 5 | |
| NEXT HIGHER ASSY. RK06 | |

digital

TITLE OPERATOR CONTROL PANEL

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | AH | 5411823-0-5 | F |

D AH 5411823-0-5 F

MS# 80736

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* NOTE:
I&TI DR SEL B L IS FROM M7706 WHEN IN SLOT 2 OF CARD NEST.
I&TI DR SEL A L IS FROM M7706 WHEN IN SLOT 3 OF CARD NEST.

* I&TI DR SEL B L
* I&TI DR SEL A L
DC5 WRL (1) H
DC6 FAULT H
DC2 READY (1) H
DC5 STOPPED LITE H
OCP WR PROT SW L
OCP RUN SW L

P/O J1 — +5V — R4 1K — 75451 E1 — P/O S4 — "B" IND L — R7 75
R3 1K — 75451 E1 — P/O S2 — "A" IND L — R6 75
75452 E2 — P/O S3 — WR PROT IND L — R8 75
75452 E2 — P/O S4 — FAULT IND L — R9 75
75452 E3 — P/O S5 — READY IND L — R13 75
75452 E3 — P/O S6 — STOP IND L — R16 75

S3 P/O — R2 2K — SOLID STATE SWITCH WR PROT SWITCH
S6 P/O — R15 2K — SOLID STATE SWITCH RUN/STOP SWITCH

UNIT SELECT SWITCH — S5 P/O — R12 1K, R14 1K, R10 1K, R11 1K — +5V — A — C-1, C-2
P/O J1 — V OCP U2 L; W OCP U1 L; X OCP U0 L; R OCP QUAL L; E OCP SW ENA L; F OCP SW ENB L

S2 P/O — R5 2K — SOLID STATE SWITCH "A" SWITCH
S1 P/O — R1 2K — SOLID STATE SWITCH "B" SWITCH

C1 .01 MF — C2 .01 MF — C3 .01 MF — C4 6.8 MF

NOTES.
1. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/4W, 5%

| GND | +5V |
|---|---|
| E1-4 | E1-8 |
| E2-4 | E2-8 |
| E3-4 | E3-8 |

| REVISIONS | | | |
|---|---|---|---|
| ZONE | CHANGE NO. | REV | |
| | 5411823-00002 | F | M CASTELLANOS |

ETCH BOARD D
DRN. M Ramos 21 NOV 75
CHK'D M Castellanos 24 NOV 75
ENG. M Castellanos 24 NOV 75
PROJ. ENG. M Castellanos 21 NOV 75
PROD. [illegible] 26 NOV 75
NEXT HIGHER ASSY. D-UA-5411823-0-0
SCALE —
SHEET 1 OF 1

FIRST USED ON RKØ6 — digital
TITLE: OPERATORS CONTROL PANEL
SIZE D | CODE CS | NUMBER 5411823-0-1 | REV F
DIST.

5411823-0-1 F

# DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

# PARTS LIST

ETCH REV D

| | | |
|---|---|---|
| MADE BY M. Poirier | CHECKED H. Demirjian | SECTION |
| DATE 9/5/75 | DATE 18 NOV 75 | |
| ENG M. Castellano | PROD C E Bowell | ISSUED SECT. |
| DATE 5/25/76 | DATE 5-25-76 | |

| ITEM NO. | DWG NO. / PART NO. | DESCRIPTION | QUANTITY / VARIATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | D-CS-5411823-0-1 | OPERATORS CONTROL PANEL (C.S.) | REF | | | | | | | | | | | |
| 2 | D-AH-5411823-0-5 | ASSY/DRILLING HOLE LAYOUT | REF | | | | | | | | | | | |
| 3 | B-MH-5411823-0-6 | MODULE ECO HISTORY | REF | | | | | | | | | | | |
| 4 | 5011822 | ETCH CIRCUIT BOARD | 1 | | | | | | | | | | | |
| 5 | 1001610-00 | CAP .01UF 50V | 3 | C1 | C2 | C3 | | | | | | | | |
| 6 | 1005306-00 | CAP 6.8UF 35V 10% S.TANT | 1 | C4 | | | | | | | | | | |
| 7 | 1302379-00 | RES 75 ¼W 5% | 6 | R6 | R7 | R8 | R9 | R13 | R16 | | | | | |
| 8 | 1302388-00 | RES 2K ¼W 5% | 4 | R1 | R2 | R5 | R15 | | | | | | | |
| 9 | 1300365-00 | RES 1K ¼W 5% | 6 | R3 | R4 | R10 | R11 | R12 | R14 | | | | | |
| 10 | 1910406-00 | I.C. 75451 | 1 | E1 | | | | | | | | | | |
| 11 | 1910645-00 | I.C. 75452 | 2 | E2 | E3 | | | | | | | | | |
| 12 | 1209941-06 | CONN 20 PIN | 1 | J1 | | | | | | | | | | |
| 13 | 1212718-00 | SWITCH, PUSHBUTTON | 4 | S1 | S2 | S3 | S6 | | | | | | | |
| 14 | 1212715-00 | INDICATOR ASSEMBLY | 1 | S4 | | | | | | | | | | |
| 15 | 1212690-00 | UNIT SELECT BASE MODULE | 1 | S5 | | | | | | | | | | |
| 16 | C-MD-7413938-0-0 | SWITCH MOUNTING BRACKET | 1 | | | | | | | | | | | |
| 17 | 1209941-03 | LATCH, LEFT | 1 | | | | | | | | | | | |
| 18 | 1209941-04 | LATCH, RIGHT | 1 | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| TITLE | ASSY NO. | SIZE | CODE | NUMBER | REV. | ECO NO. |
|---|---|---|---|---|---|---|
| OPERATORS CONTROL PANEL | D-UA-5411823-0-0 | A | PL | 5411823-0-0 | F | 5411823 00002 |
| | SHEET 1 OF 1 | DIST. | | | | |

DEC FORM DEC 16-(325)-1031-N870
DRA 110

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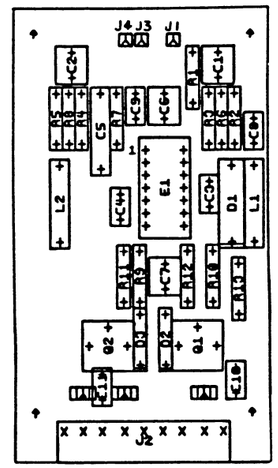
COMPONENT SIDE VIEW




SEE SHEET 2

NOTES:

| CHK | CHANGE NO | REV | |
|---|---|---|---|
| | 5411687-00003 | E | |
| | J. CARTER | | |
| | R. LAWSON | | |

HOLE DATA

| SYMBOL | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FIN HOLE SIZE | | | | | | | | | | | |
| PLATED | | | | | | | | | | | |
| NON PLATED | | | | | | | | | | | |
| QTY. | | | | | | | | | | | |
| ○-OFF GRD HLS | | | | | | | | | | | |
| | | | | | | | | | | | |
| DRILL SIZE | | | | | | | | | | | |

BOARD FABRICATION INFORMATION

| | |
|---|---|
| PANEL SIZE | |
| PANEL DATA DWG.# | |
| PANEL MAT'L | |
| QTY. OF LAYERS | |
| COPPER THICKNESS | |
| PTN. PRINT AND ETCH | |
| MODULE INSERTED 188 TIMES OR MORE? | |

| SIGNATURES | DATE |
|---|---|
| DRN. J. CARTER | 3-2-77 |
| CHK'D. | 3-2-77 |
| ENG. | 4-1-77 |
| PROJ. ENG. | 4-1-77 |
| PROD. | 4-5-77 |
| SCALE 2/1 | |
| SHT. 1 OF 4 | |
| NEXT HIGHER ASSY. RK06 | |

digital

TITLE
SERVO PREAMP

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | AH | 5411687-0-5 | E |

ETCH REV. D

MS#

5411687-0-5 E
D AH 5411687-0-5 E

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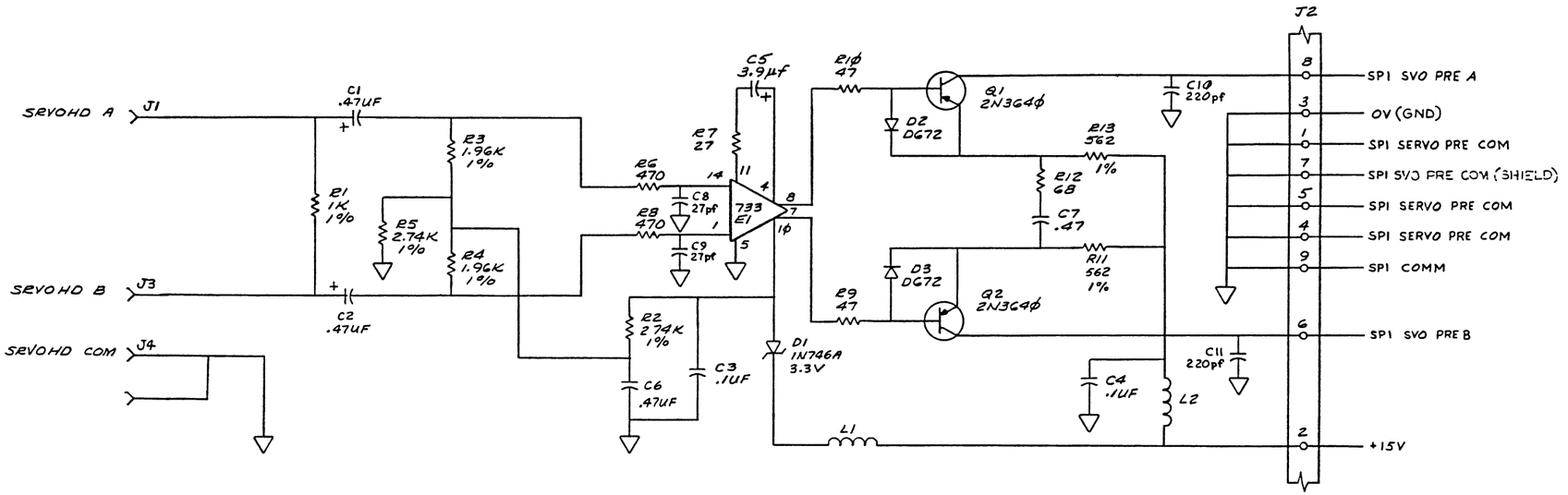


| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO. | REV. | |
| GP | 5411687-00001 | C | A. Nunez 23SEP76 |
| | | | E. SIMMONS |
| GP | 5411687-00002 | D | E. Simmons 10/1/76 |
| | | | M. CASTELLANOS |
| AA | 5411687-0003 | E | M. Castellanos 3-11-77 |
| | | | M. CASTELLANOS |
| | | | M. Castellanos 4-1-77 |
| Lm | 5411687-MLD004 | F | David Ucci 7/15/76 |
| | | | P. CASTELLANOS |
| | | | M. Castellanos 7/15/76 |

ETCH REV D

| | | | |
|---|---|---|---|
| DRN Tom Metcalfe | 2/6/76 | FIRST USED ON RK06 | digital |
| CHK'D D. Nelson | 11 FEB 76 | TITLE | |
| ENG R. Sullivan | 2/6/76 | SERVO PREAMP | |
| PROJ. ENG | | | |
| PROD | | | |
| NEXT HIGHER ASSY. | | | |
| D-UA-5411687-0-0 | | SIZE D CODE CS NUMBER 5411687-0-1 REV. F | |
| SCALE | | | |
| SHEET 1 OF 1 | | DIST. | |

D-CS-5411687-0-1 F

AUTOMATED BY PRTLST.3P(44) — P A R T S  L I S T — SHEET A1 OF A1

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION 00 | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-5411687-0-1 | | SERVO PREAMP (C.S.) | REF | |
| 2 | 2 | D-AH-5411687-0-5 | | ASSY/DRILLING HOLE LAYOUT | REF | |
| 3 | 3 | B-MH-5411687-0-6 | | MODULE ECO HISTORY | REF | |
| 4 | 4 | | 5011686-00 | 54-11687 | 1 | |
| 5 | 5 | | 1010279-00 | .47 MFD 25V 20% CER | 2 | C6,C7 |
| 6 | 6 | | 1010978-36 | .1 MFD 50V 10% CER | 2 | C3,C4 |
| 7 | 7 | | 1000064-00 | 3.9MFD 10V 10% S.TANT | 1 | C5 |
| 8 | 8 | | 1104860-00 | 1N 746A VZ= 3.3 5% | 1 | D1 |
| 9 | 9 | | 1105275-00 | D 672 TR= 15NS PIV= 60V SI | 2 | D2,D3 |
| 10 | 10 | | 1300202-00 | 47.0 .25 W 5.0 % CC | 2 | R9,R10 |
| 11 | 11 | | 1300219-00 | 68.0 .25 W 5.0 % CC | 1 | R12 |
| 12 | 12 | | 1304693-00 | 562.0 .25 W 1.0 % RN55D-F10 | 2 | R11,R13 |
| 13 | 13 | | 1303114-00 | 1.0 K .25 W 1.0 % RN55D-F10 | 1 | R1 |
| 14 | 14 | | 1304833-00 | 1.96 K .25 W 1.0 % RN55D-F10 | 2 | R3,R4 |
| 15 | 15 | | 1304868-00 | 2.74 K .25 W 1.0 % RN55D-F10 | 2 | R2,R5 |
| 16 | 16 | | 1301522-00 | 27.0 .25 W 5.0 % CC | 1 | R7 |
| 17 | 17 | | 1503029-00 | 2N 3640 PNP 200MW SI | 2 | Q1,Q2 |
| 18 | 18 | | 1611257-01 | CHOKE(CERAMIC BEAD)AXIAL LEAD,ON | 2 | L1,L2 |
| 19 | 19 | | 1210385-01 | PIN 1POS WIRE WRAP | 3 | J1,J3,J4 |
| 20 | 20 | | 1212619-01 | HEADER.156 9POS STRAIGHT | 1 | J2 |
| 21 | 21 | | 1910644-00 | 733 DIFFERENTIAL AMP,WID | 1 | E1 |
| 22 | 22 | | 1001739-00 | 27.0 MMF 100V 5%200PPM MICA | 2 | C8,C9 |
| 23 | 23 | | 1000021-00 | 220.0 MMF 100V 5%200PPM MICA | 2 | C10,C11 |
| 24 | 24 | | 1300316-00 | 470.0 .25 W 5.0 % CC | 2 | R6,R8 |
| 25 | 25 | B-DD-7012607-0-0 | | TESTER DOCUMENTATION | REF | |
| 26 | 26 | | 1017718-00 | .470 MFD 35V 20% S.TANT | 2 | C1,C2 |

| REVISION HISTORY | | | BASIC PART NO: 5411687 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ENG | ECO NUMBER | REV | SECTION A OF A | DRN: LORA METZGER | DATE: 16-JUL-80 | | D | I | G | I | T | A | L |
| PC | 5411687-ML004 | F | SECTION.VARIATION INDEX [A] 00 | CHK'D: H. DARAKJIAN | DATE: 16-JUL-80 | TITLE | PARTS LIST | | | | | | |
| | | | [B] | | | SERVO PREAMP | | | | | | | |
| | | | [C] | DES.ENG: R. GUSTAFSON | DATE: 16-JUL-80 | | | | | | | | |
| | | | [D] | | | DOCUMENT NUMBER | | | | | | | |
| | | | [E] | | | | | | | | | | |
| | | | [F] | RESP.ENG.: R. GUSTAFSON | DATE: 16-JUL-80 | SIZE | CODE | NUMBER | | | | REV | |
| | | | [H] | | | | | | | | | | |
| | | | [J] | | | | | | | | | | |
| | | | [K] | MFG.ENG.: F.P.CARTAZZO | DATE: 16-JUL-80 | K | PL | 5411687-0-DBP | | | | F | |
| | | | [L] | | | | | | | | | | |
| | | | [M] | ASSEMBLY NUMBER: | TOP DOCUMENT NUMBER: | FILE NAME: | | | | | | EDIT # | |
| | | | [N] | D-UA-5411687-0-0 | | Z1565F.PLS | | | | | | 2 | |

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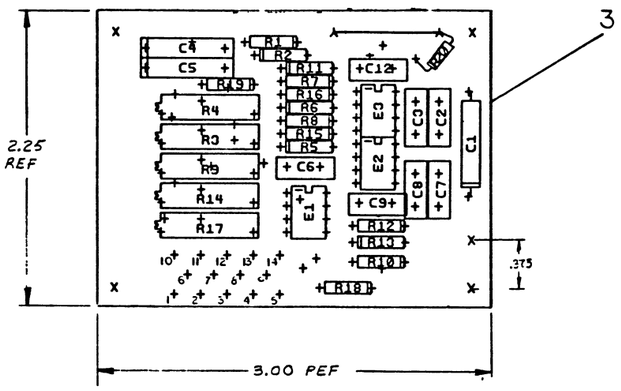
## NOTES:

* 1. C12, R15, R16, R17, E3 ARE NOT USED OR INSTALLED IN YA VARIATION.




CAUTION:
OFF SHEET PARTS LIST EXISTS
SEE K-PL-5411881-0-DBP

| IC TYPE | GND | +5V |
|---|---|---|
| | | |

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

| REV. | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| J | ECO# 5411881-00003 | 14-OCT-76 | A. RICHARDSON |
| H | ECO# 5411881-00002 | 31-AUG-77 | A RICHARDSON |
| F | ECO# 5411881-00001 | 30-JUN-77 | A RICHARDSON |
| E | ECO# 5411881-00002 | 31-AUG-77 | A RICHARDSON |
| D | ECO# 5411881-00001 | 14-OCT-76 | A. RICHARDSON |

| FIRST USED ON OPTION MODEL | QTY | REF. DESIGNATION | DESCRIPTION | PART NO. | ITEM NO. |
|---|---|---|---|---|---|
| | | | PARTS LIST | | |
| | | | ETCH BOARD REV. B | | |

| DEC NO. | EIA NO. | DEC NO. | EIA NO. |
|---|---|---|---|
| | | | |

SEMICONDUCTOR CONVERSION CHART

| | | |
|---|---|---|
| DRN. M. Price | DATE 7-21-75 | digital |
| CHK'D. Richards | DATE 11SEP 75 | TITLE PHOTO TRANSDUCER PREAMPLIFER |
| ENG. [illegible] | DATE 24 MAY 76 | |
| PROJ. ENG. [illegible] | DATE 24 MAY 76 | |
| PROD. [illegible] | DATE 5/24/76 | |
| NEXT HIGHER ASSY 1/1 | | SIZE D CODE CS NUMBER 5411881-0-1 REV. J |
| SCALE -/1 | | DIST. |
| SHEET 1 OF 2 | | |

DEC FORM NO. DNS 135.5

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PX LED ANODE U7
PX PHOTO DIODE CATHODE U11
SA3 LED CATHODE J10
L1 390 UH U2 +5V
R20 4.7
C1 15 UF
C2 .01 UF
D1 IN4004 U6 SA3 LED CATHODE
C3 .01 UF

LED ANODE (TO U7)
TRANSDUCER BLOCK AND BOARD
SEE NOTE 1
LED CATHODE (TO U10)

+15V R1 30.1K 1% R2 30.1K -15V R7 464K 1%
R3 25K CD R4 25K CD R5 511 1% R6 511 1%
R8 30.1K 1% R9 2M SG
C6 33 PF
TX SIN X U5 R10 10K
U14 PX-SIN PA
R11 464K 1%
+15V -15V

R13 30.1K 1% R14 2M CG
C9 33 PF
TX - COS X U13 R12 10K
U9 PX+COS PA
+15V -15V

R16 133K 1% R17 2M LG
C12 33 PF
TX LIM X U3 R15 10K
U12 PX-LIM PA
+15V -15V

+15V R18 100 U4 +15V RAW
C7 .01 UF C4 1 UF
-15V R19 100 U6 -15V RAW
C8 .01 UF C5 1 UF
U1 GND

SEE NOTE 2

NOTES:
1. THIS PORTION (ZONE C8) IS NOT PART OF THIS MODULE. IT IS DRAWN HERE JUST TO CLARIFY THE FUNCTIONAL RELATIONSHIP BETWEEN LED, PHOTO DIODES AND THE PREAMP.
2. THIS CIRCUIT (LIMIT) (SEE ZONE A5) IS IN VARIATION-00 ONLY.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| PHOTO TRANSDUCER PREAMPLIFIER | D | CS | 5411881-0-1 | J |
| SCALE — // — SHEET 2 OF 2 | DIST. | | | |

DEC FORM NO. 2180 1/80

5411881-0-1 REV J

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COMPONENT SIDE VIEW

## REWORK INSTRUCTIONS

ECO # 1

1-1 CHANGE R51, R53, R54, AND R55 FROM 825 1% RESISTORS TO 909 ¼ W 1% (P/N: 1302685-00)

1-2 CHANGE R57 FROM 4.7K TO JUMPER (ZERO OHM RES) (P/N: 9009185-00)

1-3 CHANGE C16 FROM 27pf CAP. TO 10pf CAP. (P/N: 1000006-00)

1-4 CHANGE C17 FROM 18pf TO 27pf CAP. (P/N: 1001739-00)

1-5 CHANGE L3 AND L4 FROM 10 uH CHOKES TO CHOKES TO 100 uH CHOKES. (1610662-00)

E.C.O. # 2

COMPONENT DELETES SIDE 1

2-1: DELETE R26 (348Ω) (P/N # 1304858)

COMPONENT ADDS SIDE 1:

2-2 ADD R26 (825Ω) (P/N # 1305143)

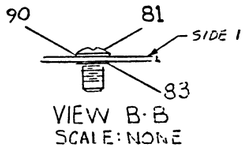
ECO # 3

COMPONENT DELETES SIDE 1:

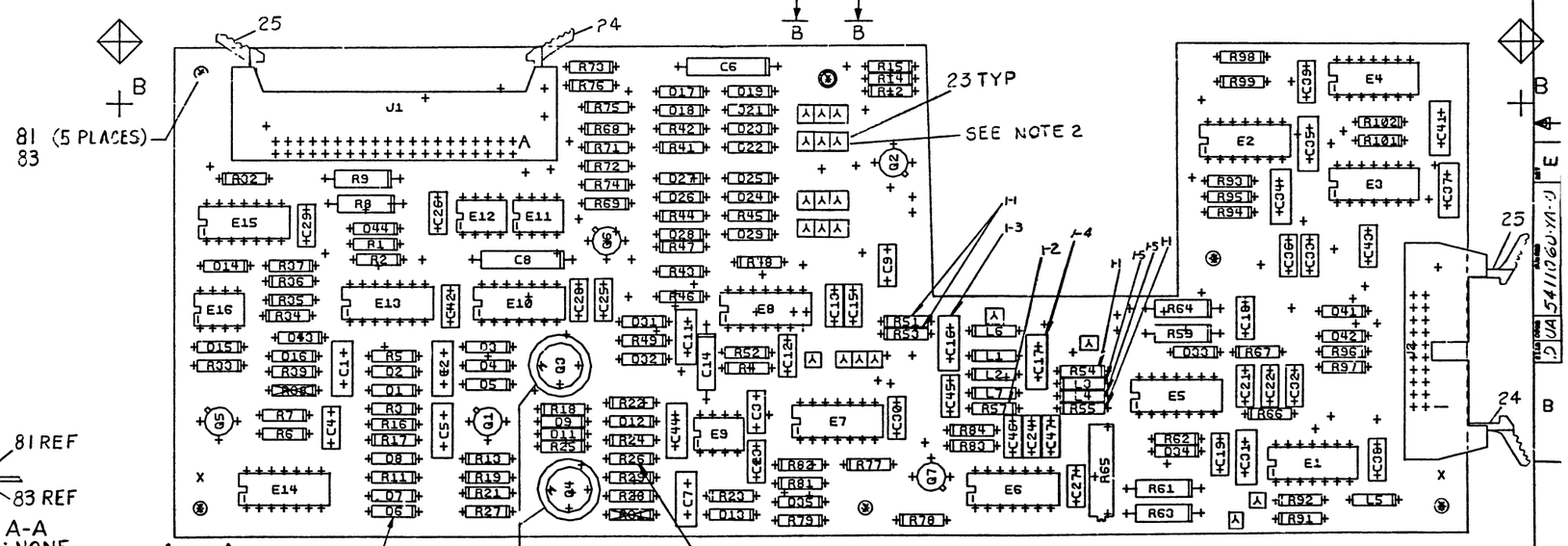
3-1. DELETE DIODE, ZENER 5.1V (P/N 1110994)

COMPONENT ADDS SIDE 1:

3-2. ADD DIODE, ZENER 5.1V (P/N 1113953)




VIEW B-B
SCALE: NONE




VIEW A-A
SCALE: NONE

NOTES:
1. B HOLES .0465 (+.000 -.0045) MAYNARD ONLY
2. [A] = WIRE WRAP PINS MOUNTED FROM SIDE 1.
3. DO NOT INSERT R31 & R38.

| CHK | CHANGE NO | REV |
|---|---|---|
| | 5411060-00 | A |
| | 5411060-YA 2 | B |
| | 5411060-YA-3 | C |
| | 5411060-YA-4 | D |
| | 5411060-YA-5 | E |

HOLE DATA

| SYMBOL | + | ∧ | X | ↑ | Z | W | Δ | □ | ◇ | * |
|---|---|---|---|---|---|---|---|---|---|---|
| FIN HOLE SIZE | .042 | .032 | .140 | | | | | | | |
| PLATED | | | | | | | | | | |
| NON PLATED | | | | | | | | | | |
| QTY. | 725 | 20 | 8 | | | | | | | |
| ○-OFF GRD HLE | | | | | | | | | | |
| DRILL SIZE | | | | | | | | | | |

.025 GRID UNLESS INDICATED

BOARD FABRICATION INFORMATION

| | |
|---|---|
| PANEL SIZE | |
| PANEL DATA DWG. # | |
| PANEL MAT'L FL-SE- | -C 1/1 |
| DEC PS - 1400000 | |
| QTY. OF LAYERS | |
| PTH. PRINT AND ETCH | |
| SOLDER MASK SIDE 2 BOTH SIDES | |
| GOLD CONTACTS BOTTOM TOP | |

| SIGNATURES | DATE |
|---|---|
| DRN. | 11/3/77 |
| CHK'D. | 11/4/77 |
| ENG. | 11/4/77 |
| PROJ. ENG. | 11/4/77 |
| PROD. | 11/7/77 |
| SCALE 2/1 | |
| SHT. 1 OF 3 | |
| NEXT HIGHER ASSY. B-DD-5411063-YA | |

digital

TITLE DRILL AND ETCH DRAWING

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | UA | 5411060-YA-0 | E |

ETCH REV. E P1

ML 1 MS# 29000"

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I&T2 WR DATA L
I&T2 WR GATE L
SCI CYL ADD 6 H CYL BIT 7
SCI CYL ADD 7 H CYL BIT 8
SCI CYL ADD 8 H CYL BIT 9
SC2 HD2 L
SC2 HD1 L
SC2 HD0 L
R/W1 SET NO TRANS L
UNS TST
SERVO HEAD
R/W1 HEAD SIGNAL +
R/W1 HEAD SIGNAL -
R/W1 SET MULT HD L
R/W1 SET CURR FAULT L
R/W1 SET HEAD FAULT L

| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO. | | REV. |
| JRN | 5411060-YA-COOOO | 4-JAN-78 | A |
| JRN | 5411060-YA-COOOO | 11-JAN-78 | B |
| JRN | 5411060-YA-COOOO | 03-JAN-78 | C |
| MC | 5411060-YA-H1004 | 13-SEP-78 | D |
| MC | 5411060-YAM1005 | 22-SEP-78 | E |

| | | |
|---|---|---|
| DRN | | 9-2-75 |
| CHK D | | 12 FEB 76 |
| ENG | | |
| PROJ ENG | | |
| PROG | | |
| NEXT HIGHER ASSY | D-UA-5411060-YA-0 | |
| SCALE | | |
| SHEET | 1 OF 2 | |

FIRST USED ON: RKØ7
TITLE: RKØ7 READ/WRITE
digital
SIZE D | CODE CS | NUMBER 5411060-YA-1 | REV. E
DIST

DEC 10-0 REV 1059

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R/W1 HEAD SIGNAL+ — R91 825 1% — C31 18PF — L5 56UH
R/W1 HEAD SIGNAL− — R92 825 1%
E1 75107B-1 (pins 1, 2, 14) — E1 75107B-1 (pins 12, 11, 13)
C32 .01UF → -5
+5C
+15V
C33 .01 MF
R93 4.64K 1%
R94 4.64K 1%
C34 220PF
C35 220PF
74S05 E2 (pins 3, 4) — 74S05 E2 (pins 8, 9)
D41 DG72 — D42 DG72
R96 120 — R97 100
R98 1.21K 1%
R99 464 1%
+15
R95 1K — C36 .01MF — 74S05 E2 (pins 5, 6)
75107B E4 (pins 5, 6, 4) — 75107B E4 (pins 8, 9, 11, 12, 13)
R101 1K — R102 1K
C37 56PF
75107B E3 (pins 5, 6, 4) — 75107B E3 (pins 8, 9, 11, 12, 13)
J2 — R/W2 RD DATA 1 L — R/W2 RD DATA 2 L
I&T2 WR GATE L → J2

J2 (S, T, M, N, W, K) → -5, +5C, +15
J2 (A, B, C, E, H, K, L, P, R, U, V)

J1 (A, B, N, V, U, VV, JJ, DD, BB, FF, U, J, H, NN, MM, M, K, F, KK, LL)
-15V, +5A, +5B, +15V, +25A, +25B

C25 .1UF (B) — C45 .01UF (B)

+5C: TO (E2) C43 .1UF — (E1) C38 .1UF — (E4) C39 .01MF — (E3) C41 .1MF
GND D

+5A: TO E11 & E12 — C26 .01MF
GND A

+5B: TO E6 — C27 .01MF
GND B

+5B: TO (E13) C42 .01MF — (E10) C28 .01MF — (E15) C29 .01MF — (E7) C30 .01MF
GND C

REVISIONS

| CHK | CHANGE NO | REV. |
|---|---|---|
| | | |

TITLE RK07 READ/WRITE
SIZE D CODE DCS NUMBER 54110607-YA-1 REV E
SCALE — SHEET 2 OF 2 DIST

DCS54111060-YA-1 REV E

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION YA | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-5411060-YA-1 | | RK07 READ WRITE (C.S.) | REF | |
| 2 | 2 | D-UA-5411060-YA-0 | | UNIT ASSEMBLY | REF | |
| 3 | 3 | B-DD-5411060-YA-0 | | DWG DIRECTORY | REF | |
| 4 | 4 | | 5011059-00 | 54-11060 | 1 | |
| 5 | 5 | | 1000006-00 | 10.0 MMF 100V 5%200PPM MICA | 3 | C11,C44,C16 |
| 6 | 6 | | 1000011-00 | 47.0 MMF 100V 5%200PPM MICA | 1 | C7 |
| 7 | 7 | | 1000012-00 | 56.0 MMF 100V 5%200PPM MICA | 1 | C37 |
| 8 | 8 | | 1000021-00 | 220.0 MMF 100V 5%200PPM MICA | 2 | C34,C35 |
| 9 | 9 | | 1000024-00 | 470.0 MMF 100V 5%200PPM MICA | 1 | C5 |
| 10 | 10 | | 1000026-00 | 580.0 MMF 100V 5%200PPM MICA | 2 | C1,C2 |
| 11 | 11 | | 1010978-36 | .1 MFD 50V 10% CER | 6 | C21,C22,C25,C41,C38,C43 |
| 12 | 12 | | 1001739-00 | 27.0 MMF 100V 5%200PPM MICA | 1 | C17 |
| 13 | 13 | | 1002608-00 | 18.0 MMF 100V 55200PPM MICA | 1 | C31 |
| 14 | 14 | | 1005306-00 | 6.8MFD 35V 10% S.TANT | 2 | C6,C8 |
| 15 | 15 | | 1001610-01 | .01 MFD50/100V +80-20% DISC | 19 | C3,C4,C9,C12,C18,C19,C23,<br>CONT C26-C30,C32,C33,C36,C39,C42,C45,<br>CONT C46 |
| 16 | 16 | | 1102421-00 | 1N 753A VZ= 6.2 5% .40W P | 2 | D33,D34 |
| 17 | 17 | | 1110994-00 | 1N 751A VZ= 5.1 5% .40W | 2 | D12,D14 |
| 18 | 18 | | 1105871-00 | 1/4M5.1AZ1 = 5.1 1% .25W N | 1 | D13 |
| 19 | 19 | | 1105275-00 | D 672 TR= 15NS PIV= 60V SI | 30 | D1-D5,D7,D8,D9,D11,D15-D19,<br>CONT D21-D29,D31,D32,D35,D41-D44 |
| 20 | 20 | | 1209941-06 | HEADER.100 20POS RT ANGLE | 1 | J2 |
| 21 | 21 | | 1209941-02 | HEADER 100 40POS RT ANGLE | 1 | J1 |
| 22 | 22 | | 1210001-00 | HEAT SINK BLACK | 2 | |
| 23 | 23 | | 1210385-01 | PIN 1POS WIRE WRAP | 20 | |
| 24 | 24 | | 1209941-04 | HEADER RT ANGLE,RIGHT | 2 | |
| 25 | 25 | | 1209941-03 | HEADER RT ANGLE LEFT L | 2 | |
| 26 | 26 | | 9009185-00 | JUMPER, WIRE, INSULATED, BLACK B | 2 | R36,R57 |
| 27 | 27 | | 1300202-00 | 47.0 .25 W 5.0 % CC | 1 | R52 |

| REVISION HISTORY | | | BASIC PART NO: 5411060 |
|---|---|---|---|
| ENG | ECO NUMBER | REV | SECTION A OF A |
| --- | 00002 | B | SECTION.VARIATION INDEX |
| B.F | 00003 | C | [A] YA |
| --- | 00004 | D | [B] |
| MC | 5411060YA-ML005 | E | [C] |
| | | | [D] |
| | | | [E] |
| | | | [F] |
| | | | [H] |
| | | | [J] |
| | | | [K] |
| | | | [L] |
| | | | [M] |
| | | | [N] |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DRN: K.DAVIS | DATE: 03-APR-78 | | D | I | G | I | T | A | L |
| CHK'D: R.W. | DATE: 03-APR-78 | TITLE PARTS LIST<br>RK07 READ/WRITE | | | | | | | |
| DES.ENG: J.ROLLINS | DATE: 03-APR-78 | | | | | | | | |
| RESP.ENG.: J.ROLLINS | DATE: 03-APR-78 | DOCUMENT NUMBER | | | | | | | |
| MFG.ENG.: MC | DATE: 03-APR-78 | SIZE: K | CODE: PL | NUMBER: 5411060-YA-DBP | | | | REV: E | |
| ASSEMBLY NUMBER: D-UA-5411060-YA-0 | TOP DOCUMENT NUMBER: RK07 | FILE NAME: Z1025E.PLS | | | | | | EDIT #: 13 | |

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AUTOMATED BY PRTLST.2D(11) P A R T S L I S T SHEET A2 OF A3

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION YA | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 28 | 28 | | 1300229-00 | 100.0 .25 W 5.0 % CC | 5 | R6,R7,R19,R21,R97 |
| 29 | 29 | | 1300247-00 | 120.0 .25 W 5.0 % CC | 1 | R96 |
| 30 | 30 | | 1300271-00 | 220.0 .25 W 5.0 % CC | 1 | R1 |
| 31 | 31 | | 1300295-00 | 330.0 .25 W 5.0 % CC | 1 | R2 |
| 32 | 32 | | 1300309-00 | 390.0 .25 W 5.0 % CC | 1 | R27 |
| 33 | 33 | | 1300316-00 | 470.0 .25 W 5.0 % CC | 1 | R11 |
| 34 | 34 | | 1300365-00 | 1.0 K .25 W 5.0 % CC | 9 | R3,R4,R5,R13,R14,R32,R95,R101, |
| | | | | | CONT | R102 |
| 35 | 35 | | 1300391-00 | 1.50 K .25 W 5.0 % CC | 2 | R23,R49 |
| 36 | 36 | | 1300394-00 | 1.50 K .50 W 5.0 % CC | 2 | R8,R9 |
| 37 | 37 | | 1300417-00 | 2.20 K .25 W 5.0 % CC | 2 | R18,R33 |
| 38 | 38 | | 1300447-00 | 4.70 K .25 W 5.0 % CC | 4 | R66,R67,R83,R84 |
| 39 | 39 | | 1300479-00 | 10.0 K .25 W 5.0 % CC | 1 | R78 |
| 40 | 40 | | 1300488-00 | 12.0 K .25 W 5.0 % CC | 1 | R12 |
| 41 | 41 | | 1301322-00 | 180.0 .25 W 5.0 % CC | 2 | R15,R46 |
| 42 | 42 | | 1301808-00 | 22.0 K .25 W 5.0 % CC | 1 | R43 |
| 43 | 43 | | 1301874-00 | 5.60 K .25 W 5.0 % CC | 5 | R16,R17,R79,R81,R82 |
| 44 | 44 | | 1302383-00 | 360.0 .50 W 5.0 % CC | 4 | R59,R61,R63,R64 |
| 45 | 45 | | 1302871-00 | 1.21 K .25 W 1.0 % RN55D-F10 | 1 | R98 |
| 46 | 46 | | 1302873-00 | 261.0 .25 W 1.0 % RN55D-F10 | 2 | R28,R29 |
| 47 | 47 | | 1302955-00 | 750.0 .25 W 1.0 % RN55D-F10 | 2 | R25,R37 |
| 48 | 48 | | 1303045-00 | 3.16 K .25 W 1.0 % RN55D-F10 | 2 | R34,R35 |
| 49 | 49 | | 1303047-00 | 464.0 .25 W 1.0 % RN55D-F10 | 1 | R99 |
| 50 | 50 | | 1304854-00 | 5.11 K .25 W 1.0 % RN55D-F10 | 7 | R47,R48,R68,R71,R72,R75,R76 |
| 51 | 51 | | 1304856-00 | 4.64 K .25 W 1.0 % RN55D-F10 | 2 | R93,R94 |
| 52 | 52 | | 1305114-00 | 3.48 K .25 W 1.0 % RN55D-F10 | 1 | R24 |
| 53 | 53 | | 1302874-00 | 147.0 .25 W 1.0 % RN55D-F10 | 1 | R62 |
| 54 | 54 | | 1305124-00 | 287.0 .25 W 1.0 % RN55D-F10 | 2 | R69,R73 |
| 55 | 55 | | 1305125-00 | 383.0 .25 W 1.0 % RN55D-F10 | 1 | R39 |
| 56 | 56 | | 1305143-00 | 825.0 .25 W 1.0 % RN55D-F10 | 3 | R26,R91,R92 |
| 57 | 57 | | 1305346-00 | 27.0 K .25 W 5.0 % CC | 3 | R41,R42,R77 |
| 58 | 58 | | 1309143-06 | 500.0 .75 W10.0 % POT | 1 | R65 |
| 59 | 59 | | 1309418-00 | 24.30 K .25 W 1.0 % RN55D-F10 | 1 | R74 |
| 60 | 60 | | 1309413-00 | 3.83 K .25 W 1.0 % RN55D-F10 | 2 | R44,R45 |
| 61 | 61 | | 1501913-00 | 2N 2904A PNP 600MW SI 60 40 Y | 2 | Q3,Q4 |
| 62 | 62 | | 1503409-02 | DEC6534C PNP 310MW SI 40 70 P | 2 | Q2,Q6 |
| 63 | 63 | | 1509338-00 | DEC6531B NPN 310MW SI 40 90 P | 3 | Q1,Q5,Q7 |
| 64 | 64 | | 1610662-00 | 100.0 UH 10% 165MA #DD1 00 | 2 | L3,L4 |
| 65 | 65 | | 1612946-01 | 33 UH 10% 260MA | 2 | L1,L2 |
| 66 | 66 | | 1610661-00 | 56 UH 10% #DD56 | 1 | L5 |
| 67 | 67 | | 1611257-01 | CHOKE(CERAMIC BEAD)AXIAL LEAD,ON | 2 | L6,L7 |
| 68 | 68 | | 1905587-00 | DEC 7473 FF-JK DUAL,MASTER SL | 1 | E10 |
| 69 | 69 | | 1910298-00 | 741 OP AMP GEN PURP. COM | 1 | E16 |
| 70 | 70 | | 1910268-00 | DEC 75107B RECEIVER,LINE,DUAL, | 2 | E3,E4 |
| 71 | 71 | | 1910406-00 | 75451 DRIVER,PERIPH,DUAL, | 2 | E11,E12 |
| 72 | 72 | | 1910532-00 | 74S00 NAND GATE-QUAD 2IN | 1 | E13 |
| 73 | 73 | | 1910535-00 | 74S05 INVERTER GATE-HEX 1 | 1 | E2 |
| 74 | 74 | | 1910539-00 | 74S20 NAND GATE-DUAL 4INPU | 1 | E14 |

| D | I | G | I | T | A | L | TITLE | SECTION | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | RK07 READ/WRITE | A OF A | K | PL | 5411060-YA-D8P | E |

AUTOMATED BY PRTLST.2D(11) P A R T S L I S T SHEET A3 OF A3

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY PER VARIATION YA | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 75 | 75 | | 1910644-00 | 733 DIFFERENTIAL AMP,WID | 2 | E5,E8 |
| 76 | 76 | | 1910741-01 | 7406N BUFFER,HEX | 1 | E15 |
| 77 | 77 | | 1911469-00 | DEC 8640 RECEIVER,BUS,QUAD,U | 2 | E6,E7 |
| 78 | 78 | | 1910282-00 | 301AN OP AMP | 1 | E9 |
| 79 | 79 | | 1910268-01 | DEC 75107B-01 RECEIVER,LINE,DUA | 1 | E1 |
| 80 | 80 | | 1301401-00 | 750.0 .25 W 5.0 % CC | 1 | R22 |
| 81 | 81 | | 7415620-01 | SCREW CAPTIVE | 6 | |
| 82 | 82 | | 9007201-00 | TRANSIPADS #10253 | 2 | |
| 83 | 83 | | 9009271-00 | RING, RETAINING, REINFORCED, FIT | 6 | |
| 84 | 84 | | 1000064-00 | 3.9MFD 10V 10% S.TANT | 1 | C14 |
| 85 | 85 | | 1011740-01 | 3300.0 MMF 50V 10% CER | 2 | C13,C15 |
| 86 | 86 | B-DD-7012623-0-0 | | TESTER DOCUMENTS (PROTO) | REF | |
| 87 | 87 | B-DD-7012784-0-0 | | TESTER DOCUMENTS (PRODUCTION) | REF | |
| 88 | 88 | | 1010279-00 | .47 MFD 25V 20% CER | 2 | C24,C47 |
| 89 | 89 | B-MD-7417415-0-0 | 9006010-01 | *** THIS ITEM IS NOT USED *** | - | |
| 90 | 90 | | 9006632-00 | WASHER,LOCK,INT,.260OD X .120ID | 1 | |
| 91 | 91 | | 1302685-00 | 909.0 .25 W 1.0 % RN55D-F10 | 4 | R51,R53,R54,R55 |
| 92 | 92 | | 1113953-00 | 1N 5523D VZ= 5.1 1% | 1 | D6 |

| DIGITAL | TITLE | SECTION | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|
| | RK07 READ/WRITE | A OF A | K | PL | 5411060-YA-DBP | E |

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5401142-0-S P
D AH 5401142-0-S P

.187"DIA.

1. 8 HOLES .0465 (+.000-.0045) MAYNARD ONLY

| CHG/CHANGE NO | REV |
|---|---|
| WE 5411042-10 | N |
| Dwight | 6/6 |
| CASTELLANOS | 6/6 |
| 5411042-M12 | P |
| | 6/6 |
| M.CASTELLANOS | 6/7 |

| HOLE DATA | + | A | X | ◆ | Z | W | Δ | ⊡ | ◈ | * |
|---|---|---|---|---|---|---|---|---|---|---|
| SYMBOL | | | | | | | | | | |
| FIN HOLE SIZE | .042 | .128 | .073 | .067 | .055 | .156 | .187 | | | |
| PLATED | ✓ | | ✓ | ✓ | ✓ | | | | | |
| NON PLATED | | ✓ | | | | ✓ | ✓ | | | |
| QTY. | 525 | 18 | 47 | 25 | 30 | 16 | 3 | | | 16 |
| ○=OFF GRD HLE | | | 17 | 15 | | 8 | | | | |
| DRILL SIZE | | | | | | | | | | |

.025 GRID UNLESS INDICATED

| BOARD FABRICATION INFORMATION |
|---|
| PANEL SIZE 8.5 X 17.00 |
| PANEL DATA DWG. #E-MD-7606032-0-0 |
| PANEL MAT'L FL-GF-052-C 2/1 |
| DEC PS - 1400000 |
| QTY. OF LAYERS 2 |
| PTH, ✓ PRINT AND ETCH |
| SOLDER MASK SIDE 2 BOTH SIDES |
| GOLD CONTACTS N BOTTOM TOP |

| SIGNATURES | DATE |
|---|---|
| DRN. D Dwight | 6-6-78 |
| CHK'D. W. Fitzpatrick | 6/7/78 |
| ENG. M Castellanos | 6/7/78 |
| PROJ.ENG. M Castellanos | 6/7/78 |
| PROD. M Castellanos | 6/7/78 |
| SCALE | |
| SHT. 1 OF 3 | |
| NEXT HIGHER ASSY. | |

digital

TITLE DRILL AND ETCH DRAWING

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | AH | 5411042-0-5 | P |

ETCH REV. F-P1

8 7 6 5 4 3 2 1 MS#

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[TO CAP BOARD]

P/O J4

+25V

-25V

Q1 2N3055 — SEE NOTE 1

Q2 2N3725

Q3 XA05

Q4 DEC 8039

Q5 2N3054 — SEE NOTE 1

Q6 XA55

Q7 DEC 8398

R1 68

R2 2.4K

R3 1K ½W

R4 1K

R5 1.2K

R6 10

R7 1.3 1W 3%

R8 10

R9 47Ø 2W

R10 4.7K

R11 1M

R12 10K 1/8W 1%

R13 4.99K 1%

R14 3.48K 1/8W 1%

R15 511 ¾W 1%

R16 200 1W

R17 1K ½W

R18 47Ø

R19 47Ø 1W 10%

R20 12Ø

R21 47Ø 2W

R22 10

R23 .75 2W

R24 3K ½W

R25 47Ø

R26 1K

R27 1M

R28 11.5K 1%

R29 3.83K 1%

R30 3.48K 1/8W 1%

R31 1K ½W

C1 .01µf

C2 100µf 25V

C3 .01µf

C4 .01µf

C5 .01µf

C6 .01µf

C7 600µf

C8 .01µf

C9 .01µf

C10 270 pf

C11 .01µf

C2 270 pf

E1 3Ø1A

E2 3Ø1A

D2 D664

D3 .4MS.1A21

D4 .4MS.1A21

D6 D664

D7 D664

+15V

-15V

5.1V

+5.1V(A)

F2 ½ AMP

P/O J1

[TO CARD NEST POWER CONN]

J1-5 +25V

J1-6 +15V 600 MA

J1-11 -15V (600 MA)

J1-13 SPARE

NOTE:
1. COMPONENTS ENCLOSED BY DASHED LINE MOUNTED ON HEAT SINK
2. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE ¼W, ±5%
3. REF. DESIGNATIONS NOT USED ARE R32, D1, D5, Q15, R97, R98, R101, R102

| REVISIONS | | |
|---|---|---|
| DW | CHANGE NO. | REV. |
| | 54110042-00001 | D |
| | 54110042-00002 | E |
| | 54110042-00003 | F |
| | 54110042-00004 | H |
| | 54110042-00006 | K |
| | 54110042-00007 | L |
| | 54110042-00009 | M |
| | 54110042-00010 | N |
| | 54110042 ML812 | P |

| | |
|---|---|
| ETCH BOARD | F |
| DRN | 9\|3\|75 |
| CHK'D | |
| ENG | |
| PROD ENG | |
| PROD | |
| NEXT HIGHER ASSY. | D-UA-54110042-0-1 |
| SCALE | |
| SHEET 1 OF 4 | |

FIRST USED ON RK06

digital

TITLE H 767 POWER SUPPLY (PSI)

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | CS | 54110042-0-1 | P |

DIST.

DEC FORM NO. DRD 100-B

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TO CAP BOARD

P/O J4

+10 V

F1 12 AMP

SEE NOTE 1

Q8 2N3055 — R36 .05 5W 3%

Q9 2N3055 — R37 .05 5W 3%

Q10 2N3055 — R38 .05 5W 3%

R40 10Ω

R39 .02 5W 3%

R41 39

Q13 DEC B098

R43 1M

R44 12.1K 1%

R45 12.1K 1%

+15V

R35 1K ½W

C13 .22 µf 50 V

SEE NOTE 1

Q11 2N4923

R31 10 1W 10%

R32 10 1W 10%

+15V

Q12 2N3725

R33 470

R42 330

C14 .01µf

E3 301A

C15 1000 pf

+5.1 V

R46 12.1K 1%

R47 1K 3/4W 10%

R48 12.1K 1%

R49 68

R50 10

SEE NOTE 1

Q14 XA55

D32 MCEG09-P2

C16 .01µf

D8 .4M 5.1A21

C17 .1 µf

R51 47

C30 .01µf

C18 190µf 12V

R108 470

P/O J1

TO CARD NEST POWER CONN.

+5V (10 A)

-10 V

SEE NOTE 1

Q16 2N5294

R56 .6 1W 3%

R52 470

R55 470 1W

-15V

R57 18

Q18 DEC B598

R53 120

D10 D664

Q17 XA55

R58 24K

R54 560

D9 D664

R59 1M

+15V

C19 .01µf

E4 301A

C20 150 pf

C21 .01µf

R60 3.16K 1%

-15V

R61 6.81K 1%

R62 1K 3/4W 10%

R63 6.81K 1%

+5.1 V

C31 .1µf

C22 100µf 25V

R1 220

-5 V (300 MA)

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| H767 POWER SUPPLY (PS2) | D | CS | 5411042-0-1 | P |
| SCALE — | SHEET 2 OF 4 | DIST. | | |

DEC FORM NO. DRD 138

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TO TRANSFORMER AREA CONN. TAT1J2

13V RMS

P/O J3

D20 1N4005

D21 1N4005

R81 825 1%

R82 1K 1%

C23 .15µF 35V

R83 1K 1%

R84 1K 1%

R85 750 1/4W 1%

R86 511 1%

R87 47K

+15V

-15V

+5.1V(A)

E7 3WA

D22 1N756A 4.7V

+5.1V(A)

R88 12.1K 1%

C24 3.9µF

9601 E8

R89 3K

+5.1V(A)

R90 1K

Q20 2N5433

R91 4.7K

-15V

D23 D664

R92 10K

+5.1V(A)

R93 1K

Q21 2N5433

P/O J2

TO CARD NEST CABLE BOARD M9017

AC LOW L PS3

GND

+15V

D11 1N756A 8.2V

D13 D664

+5V

+15V

R65 10K

R66 9.09K 1%

D12 D664

R64 330

R67 10K 1/8W 1%

E5 3WA

D14 D672

R71 2K

D15 D664

R72 4.7K

-15V

R73 10K

+5.1V(A)

R74 1K 1%

Q19 2N5433

PS3 DC LOW L

GND

+5.1V(A)

R68 10K 1/8W 1%

R69 10K 1/8W 1%

R70 10M

-15V

D16 1N756A 8.2V

D17 D664

R75 330

D18 D664

-5V

R76 10K

-15V

R77 9.09K 1%

+5.1V(A)

R78 10K 1/8W 1%

R80 10M

+15V

E6 3WA

D19 D672

R79 4.7K

-15V

A B C D

8 7 6 5 4 3 2 1

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

DEC FORM NO. DRG 128

TITLE H767 POWER SUPPLY (PS3)

SIZE D | CODE CS | NUMBER 5411042-0-1 | REV. P

SCALE | SHEET 3 OF 4 | DIST.

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+25V
R96 22Ø
R105 Ø.2 5W
C32 10µf 50V
D26 IN4721
+25V
D27 IN4721
-25V
D24 D664
W3
Q24 D45C8
Q25 DEC 3716
W1
R103 56
TP-1
MTR VOLTAGE
R95 5.11K 1%
P/O J4
(TO CAP BOARD)
7 CAP LINEAR MOTOR PWR
8 PS4 LINEAR MOTOR DRIVER
6 PS4 BATTERY -
21 DC1 EN BRUSHES L
22 DC1 SPINDLE ON L
20 DC5 SPINDLE BRAKE L
TO CARD NEST CABLE BOARD M9Ø1G
P/O J2
CURRENT COMMAND
SAI - ANALOG GND(A)
R94 24.9K 1%
R109 24.9K 1/8W 1%
C26 33pf
E9 2Ø1A
C25 .Ø1µf
C27 .Ø1µf
-15V +15V
R110 5.11K 1%
PS4 REMOTE SENSE B
Q22 DEC 1Ø11
Q23 2N2904A
C29 1ØØpf
P/O J2
X
EMITTER TEST POINT
R100 1K 1/2W
R104 56
Q27 2N3792
W2
W4
Q26 D44C8
D25 D664
R99 22Ø
C33 10µf 50V
R106 Ø.2 5W
-25V
R113 1.5K 1W
D29 D664
-25 V
+25 V
R112 1.5K 1W
D28 D664
P/O J2
TO CARD NEST CABLE BOARD M9Ø1G
N DC5 SPINDLE BRAKE L
T DC1 SPINDLE ON L
R DC1 EN BRUSHES L
F PS4 REMOTE SENSE A
D PS4 REMOTE SENSE B
R107 Ø.2 5W
C28 .22µf
R111 56 5W
P/O J3
(TO CHASSIS AREA CONN)
CAM 2 CA. BI FOR L NEAR MOM & BATTERY LINEAR MOTOR PWR
2 CAP
1 PS4 LIN MTR-RET
4 PS4 BATTERY -
3 PS4 BATTERY +

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |
| | | |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| H767 POWER SUPPLY (PS4) | D | CS | 5411042-0-1 | P |
| SCALE — | SHEET 4 OF 4 | DIST. | | |

DEC FORM NO. DRD 138

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 1 | 1 | D-CS-5411042-0-1 | | H767 POWER SUPPLY | REF | |
| 2 | 2 | D-AH-5411042-0-5 | | ASSY/DRILLING HOLE LAYOUT | REF | |
| 3 | 3 | B-MH-5411042-0-6 | | MODULE ECO HISTORY | REF | |
| 4 | 4 | | 5011041-00 | 54-11042 | REF | |
| 5 | 5 | | 1310876-03 | .05 5W 3% WW | 3 | R36-R38 |
| 6 | 6 | | 1312683-00 | .3 1W 3% WW | 1 | R9 |
| 7 | 7 | | 1311467-00 | .75 2W 5% WW | 1 | R23 |
| 8 | 8 | | 1312684-00 | .6 1W 3% WW | 1 | R56 |
| 9 | 9 | | 1301317-00 | 10 1/4W 5% CC | 2 | R50,R22 |
| 10 | 10 | | 1300171-00 | 10 1W 5% CC | 2 | R31,R32 |
| 11 | 11 | | 1300202-00 | 47 1/4W 5% CC | 1 | R51 |
| 12 | 12 | | 1300219-00 | 68 1/4W 5% CC | 2 | R2,R49 |
| 13 | 13 | | 1300229-00 | 100 1/4W 5% CC | 2 | R7,R40 |
| 14 | 14 | | 1305143-00 | 825 1/4W 1% RN55D-F 100PPM | 1 | R81 |
| 15 | 15 | | 1300316-00 | *** THIS ITEM IS NOT USED *** | - | |
| 16 | 16 | | 1302382-00 | 200 1W 5% CC | 1 | R16 |
| 17 | 17 | | 1300271-00 | 220 1/4W 5% CC | 3 | R1,R96,R99 |
| 18 | 18 | | 1300295-00 | 330 1/4W 5% CC | 3 | R42,R64,R75 |
| 19 | 19 | | 1300316-00 | 470 1/4W 5% CC | 5 | R18,R33,R52,R108,R25 |
| 20 | 20 | | 1300319-00 | 470 1W 5% CC | 1 | R19 |
| 21 | 21 | | 1302411-00 | 511 1/4W 1% RN55D-F 100PPM | 1 | R86 |
| 22 | 22 | | 1300324-00 | 511 3/4W 1% RN65D-F 100PPM | 1 | R15 |
| 23 | 23 | | 1302685-00 | 909 1/4W 1% RN55D-F 100PPM | 1 | R85 |
| 24 | 24 | | 1300365-00 | 1 K 1/4W 5% CC | 4 | R4,R90,R93,R26 |
| 25 | 25 | | 1303114-00 | 1.0 K 1/4W 1% RN55D-F 100PPM | 4 | R74,R82,R83,R84 |
| 26 | 26 | | 1309143-07 | 1 K 3/4W 10% POT 100PPM | 2 | R47,R62 |
| 27 | 27 | | 1301320-00 | 1.2 K 1/4W 5% CC | 1 | R5 |
| 28 | 28 | | 1300364-00 | 1 K 1/2W 5% CC | 5 | R35,R6,R17,R34,R100 |
| 29 | 29 | | 1302388-00 | 2 K 1/4W 5% CC | 1 | R71 |
| 30 | 30 | | 1303062-00 | 470 2W 5% CC | 1 | R21 |

REVISION HISTORY

| ENG | ECO NUMBER | REV |
|---|---|---|
| WE | 00010 | N |
| M.C | 5411042-ML012 | P |

SECTION 1 OF 1

SECTION, VARIATION INDEX

1.00
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

RESP.ENG.: J.DREW DATE: 17-JUL-78

MADE BY: L.METZGER DATE: 17-JUL-78

CHECKED: H.DAMAKJIAN DATE: 17-JUL-78

DSN.ENG.: J.DREW DATE: 17-JUL-78

PROD.: C.POWELL DATE: 17-JUL-78

ASSEMBLY NUMBER: D-UA-5411042-0-0

| D | I | G | I | T | A | L |
|---|---|---|---|---|---|---|

TITLE PARTS LIST

H767 POWER SUPPLY

| SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|
| K | PL | 5411042-0-DBP | P |

EDIT # 6

PART NUMBER: 5411042

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| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 31 | 31 | | 1300432-00 | 3 K 1/4W 5% CC | 1 | R89 |
| 32 | 32 | | 1305114-00 | 3.48 K 1/4W 1% RN55D-F 100PPM | 2 | R14,R30 |
| 33 | 33 | | 1309413-00 | 3.83 K 1/4W 1% RN55D-F 100PPM | 1 | R29 |
| 34 | 34 | | 1303045-00 | 3.16 K 1/4W 1% RN55D-F 100PPM | 1 | R60 |
| 35 | 35 | | 1300447-00 | 4.7 K 1/4W 5% CC | 4 | R10,R72,R79,R91 |
| 36 | 36 | | 1305324-00 | 4.99 K 1/4W 1% RN55D-F 100PPM | 1 | R13 |
| 37 | 37 | | 1304870-00 | 6.81 K 1/4W 1% RN55D-F 100PPM | 2 | R61,R63 |
| 38 | 38 | | 1304855-00 | 9.09 K 1/4W 1% RN55D-F 100PPM | 2 | R66,R77 |
| 39 | 39 | | 1300479-00 | 10 K 1/4W 5% CC | 4 | R65,R73,R76,R92 |
| 40 | 40 | | 1303312-00 | 10.0 K 1/4W 1% RN55D-F 100PPM | 5 | R12,R67,R68,R69,R78 |
| 41 | 41 | | 1309415-00 | 11.5 K 1/4W 1% RN55D-F 100PPM | 1 | R28 |
| 42 | 42 | | 1303313-00 | 12.1 K 1/4W 1% RN55D-F 100PPM | 5 | R44,R45,R46,R48,R88 |
| 43 | 43 | | 1304837-00 | 24 K 1/4W 5% CC | 1 | R58 |
| 44 | 44 | | 1302177-00 | 47 K 1/4W 5% CC | 1 | R87 |
| 45 | 45 | | 1311337-00 | 56 5W 5% WW | 1 | R111 |
| 46 | 46 | | 1304854-00 | 5.11 K 1/4W 1% RN55D-F 100PPM | 2 | R95,R110 |
| 47 | 47 | | 1305405-00 | 24.9 K 1/4W 1% RN55D-F 100PPM | 2 | R94,R109 |
| 48 | 48 | | 1300319-00 | *** THIS ITEM IS NOT USED *** | - | |
| 49 | 49 | | 1309884-00 | .2 5W 5% WW | 3 | R105-R107 |
| 50 | 50 | | 1302602-00 | 56 1/4W 5% CC | 2 | R103,R104 |
| 51 | 51 | | 1300395-00 | 1.5 K 1W 10% CC | 2 | R112,R113 |
| 52 | 52 | | 1303177-00 | 2.4 K 1/4W 5% CC | 1 | R3 |
| 53 | 53 | | 1309595-00 | 1 M 1/4W 5% CC | 4 | R11,R43,R59,R27 |
| 54 | 54 | | 1302666-00 | 10 M 1/4W 5% CC | 2 | R70,R80 |
| 55 | 55 | | 1310876-00 | .02 5W 3% WW | 1 | R39 |
| 56 | 56 | | 1302377-00 | 39 1/4W 5% CC | 1 | R41 |
| 57 | 57 | | 1300247-00 | 120 1/4W 5% CC | 2 | R20,R53 |
| 58 | 58 | | 1300431-00 | 3 K 1/2W 5% CC | 1 | R24 |
| 59 | 59 | | 1300309-00 | *** THIS ITEM IS NOT USED *** | - | |
| 60 | 60 | | 1301890-00 | 560 1/4W 5% CC | 1 | R54 |
| 61 | 61 | | 1302124-00 | 18 1/4W 5% CC | 2 | R57,R8 |
| 62 | 62 | | 1300319-00 | 470 1W 5% CC | 1 | R55 |
| 63 | 63 | | 1000042-00 | 1000.0 MMF 100V 5%200PPM DM15S | 1 | C15 |
| 64 | 64 | | 1000022-00 | 270.0 MMF 100V 5%200PPM DM15S | 2 | C10,C2 |
| 65 | 65 | | 1001610-01 | .01 MFD 100V -20+80 Z5U DISC | 16 CONT | C1,C3,C4,C5,C6,C8,C9,C11,C14,C16,C19,C21, C25,C27,C30,C31 |
| 66 | 66 | | 1000064-00 | 3.9MFD 10V 10% 150D S.TA | 1 | C24 |
| 67 | 67 | | 1002781-00 | 100 MFD 25V G% 30D AL EL | 2 | C12,C22 |
| 68 | 68 | | 1010274-00 | .22 MFD 50V -20+80 Z5U CER | 1 | C13 |
| 69 | 69 | | 1009433-00 | 190 MFD 12V G% 30D AL FL | 1 | C18 |
| 70 | 70 | | 1011849-01 | 600. MFD 25V G%500D AL FL | 1 | C7 |
| 71 | 71 | | 1000019-00 | 150.0 MMF 100V 5%200PPM DM15S | 1 | C20 |
| 72 | 72 | | 1002180-00 | .15 MFD 35V 20% 150D S.TA | 1 | C23 |
| 73 | 73 | | 1000037-00 | .22 MFD 100V 10% 663F MYLR | 1 | C28 |
| 74 | 74 | | 1000009-00 | 33.0 MMF 100V 5%200PPM DM15S | 1 | C26 |
| 75 | 75 | | 1000016-00 | 100.0 MMF 100V 5%200PPM DM15S | 1 | C29 |
| 76 | 76 | | 1000070-00 | 10 MFD 50V H% 43D AL EL | 2 | C32,C33 |
| 77 | 77 | | 1109465-00 | MCR 649P2SCR@ 50V I=20A T041 | 1 | D32 |

| D | I | G | I | T | A | L | TITLE | SECTION 1 OF 1 | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | H767 POWER SUPPLY | | K | PL | 5411042-0-DBP | P |

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 78 | 78 | | 1100114-00 | D 664 QS\75PCB PIV= 25V SP | 15 | D2,D6,D7,D9,D10,D12,D13,D15,D17,D18,D23, |
| | | | | | CONT | D24,D25,D28,D29 |
| 79 | 79 | | 1105275-00 | D 672 TR= 15NS PIV= 60V SI | 2 | D14,D19 |
| 80 | 80 | | 1100124-00 | 1N 750A VZ= 4.7 5% .40W P | 1 | D22 |
| 81 | 81 | | 1103441-00 | 1N 756A VZ= 8.2 5% .40W P | 2 | D11,D16 |
| 82 | 82 | | 1105873-00 | 4M5-1AZ1 VZ= 5.1 1% .400W | 3 | D3,D4,D8 |
| 83 | 83 | | 1110967-00 | 1N 4005 PIV=600 I= 1A DO41 SI | 2 | D20,D21 |
| 84 | 84 | | 1110182-00 | 1N 4721 PIV=200 I= 3A A179ASY | 2 | D26,D27 |
| 85 | 85 | | 1505819-00 | 2N 3055 NPN 115WC SI 60 20 Y | 4 | Q1,Q8,Q9,Q10 |
| 86 | 86 | | 1510959-00 | 2N 3725 NPN 3.5WC SI 50 60 P | 2 | Q2,Q12 |
| 87 | 87 | | 1510705-00 | XA 05 NPN 500MW SI 60 50 P | 1 | Q3 |
| 88 | 88 | | 1510377-00 | 2N 5294 NPN 36WC SI 70 30 M | 1 | Q16 |
| 89 | 89 | | 1509604-00 | DEC4923 NPN 30WC SI 80 20 M | 1 | Q11 |
| 90 | 90 | | 1510706-00 | XA 55 PNP 500MW SI 60 50 P | 4 | Q6,Q14,Q17,Q20 |
| 91 | 91 | | 1509523-00 | 2N 3054 NPN 25WC SI 55 25 Y | 1 | Q5 |
| 92 | 92 | | 1501913-00 | 2N 2904A PNP 600MW SI 60 40 Y | 1 | Q23 |
| 93 | 93 | | 1510013-00 | DEC1011 NPN 5WC SI 55 25 P | 1 | Q22 |
| 94 | 94 | | 1510598-00 | DEC45C8 PNP 27WT SI 60 20 Y | 1 | Q24 |
| 95 | 95 | | 1510421-00 | D 44C8 NPN 30WT SI 60 20 | 1 | Q26 |
| 96 | 96 | | 1503069-00 | DEC3716 NPN | 1 | Q25 |
| 97 | 97 | | 1509581-01 | 2N 3792 PNP 150WC SI 80 30 M | 1 | Q27 |
| 98 | 98 | | 1511686-00 | DEC5433 FET N 350MW 10 25 1A | 2 | Q19,Q21 |
| 99 | 99 | | 1910282-00 | 301AN OP AMP | 7 | E1-E7 |
| 100 | 100 | | 1909373-00 | 9601 ONE SHOT,RETRIGGERAB | 1 | E8 |
| 101 | 101 | | 9008290-00 | FUSE, SLO BLOW, 12.000A, 32V, G | 1 | F1 |
| 102 | 102 | | 1209941-06 | HEADER.100 20POS RT ANGLE | 1 | J2 |
| 103 | 103 | | 1212204-06 | HEADER.156 8POS RT ANGLE | 1 | J3 |
| 104 | 104 | | 1212204-07 | HEADER.156 13POS RT ANGLE | 1 | J1 |
| 105 | 105 | | 1212204-05 | HEADER.156 22POS RT ANGLE | 1 | J4 |
| 106 | 106 | | 1212487-00 | HEAT SINK,1"X1.18X.5",XSISTOR&SC | 2 | |
| 107 | 107 | | 1212957-00 | HEAT SINK,RK05 140WATTS W500FT/M | 1 | |
| 108 | 108 | | 9008419-00 | WASHER, FLAT, THERMAFILM .002THK | 7 | |
| 109 | 109 | | 9007201-00 | TRANSIPADS #10253 | 4 | |
| 110 | 110 | | 9006735-00 | EYELET, FUNNEL FLANGE, .059 OD X | 9 | |
| 111 | 111 | | 9009786-00 | INSULATOR, SEMICONDUCTOR, FOR TO | 1 | |
| 112 | 112 | | 9008268-00 | COMPOUND, THERMAL JOINT S | A/R | |
| 113 | 113 | | 1209941-04 | HEADER RT ANGLE,RIGHT | 1 | |
| 114 | 114 | | 1209941-03 | HEADER RT ANGLE LEFT L | 1 | |
| 115 | 115 | | 9007203-00 | CLIP, FUSE, WITH STOP, SCREW MOU | 2 | |
| 116 | 116 | | 9107560-01 | WIRE,BUSS,22AWG | 4 | W1-W4 |
| 117 | 117 | | 9009597-00 | INSULATOR, THERMA-FILM S | 2 | |
| 118 | 118 | | 9006732-00 | EYELET, ROLLED FLANGE, .121 OD X | 2 | |
| 119 | 119 | | 9007793-01 | SCREW,PAN ,PHIL, 6-32X 9/16 | 16 | |
| 120 | 120 | | 9008185-00 | NUT,KEP , 6-32X1/4 AF | 16 | |
| 121 | 121 | | 9006653-00 | WASHER, FLAT, .375 O.D. X .156 I | 13 | |
| 122 | 122 | | 9006012-01 | SCREW,PAN ,PHIL, 4-40X 7/16 | 2 | |
| 123 | 123 | | 9006655-00 | WASHER, FLAT, .312 O.D. X .125 I | 5 | |
| 124 | 124 | | 9006557-00 | NUT,KEP , 4-40X 1/4 AF | 4 | |

| D | I | G | I | T | A | L | TITLE | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | H767 POWER SUPPLY | K | PL | 5411042-0-DBP | P |
| | | | | | | | SECTION 1 OF 1 | | | | |

| LINE | ITEM | DOCUMENT NUMBER | PART NUMBER | DESCRIPTION | QTY | REFERENCE DESIGNATOR |
|---|---|---|---|---|---|---|
| 125 | 125 | | 9008033-01 | SCREW,PAN ,PHIL, 4-40X 9/16 | 2 | |
| 126 | 126 | | 9009769-00 | WASHER, RECTANGULAR .405X.225X.0 | 3 | |
| 127 | 127 | | 1010978-36 | .1 MFD 50V 10% 2C067 CFR | 1 | C17 |
| 128 | 128 | | 1209159-00 | FUSE, SUB-MINI, .500A, 125V, A | 1 | F2 |
| 129 | 129 | | 9107278-11 | *** THIS ITEM IS NOT USED *** | - | |
| 130 | 130 | | 1512212-00 | DEC8098 NPN 350MW SI 60 50 | 2 | Q4,Q13 |
| 131 | 131 | | 1512211-00 | DEC8598 PNP 350MW SI 60 50 | 2 | Q7,Q18 |
| 132 | 132 | | 9107688-22 | *** THIS ITEM IS NOT USED *** | - | |
| 133 | 133 | | 9006708-00 | WASHER, NYLON, FLAT #8 .375 OD | 3 | |
| 134 | 134 | | 1911143-00 | DEC 201A OP AMP | 1 | E9 |

| D | I | G | I | T | A | L | TITLE | SECTION 1 OF 1 | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | H767 POWER SUPPLY | | K | PL | 5411042-0-DBP | P |

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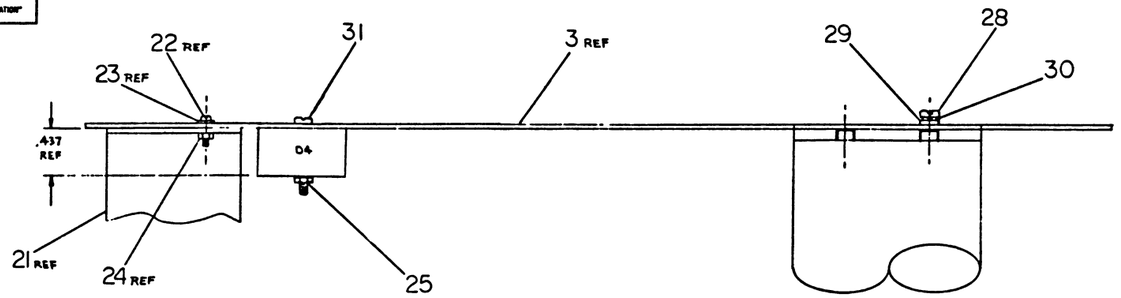
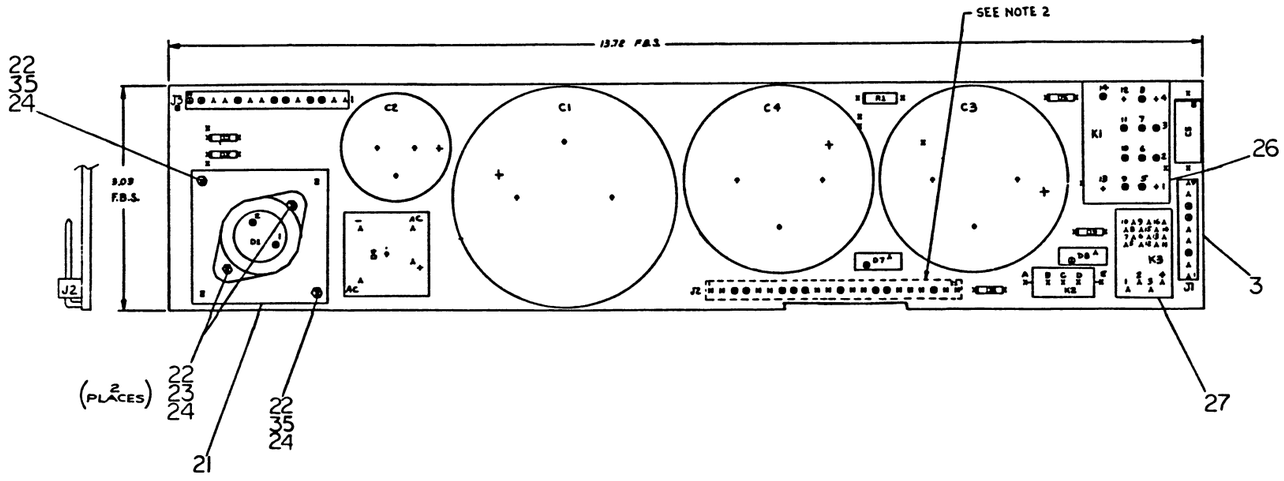
## NOTES:




| REF | | | | |
|---|---|---|---|---|
| REF | | ASSY/DRILLING HOLE LAYOUT | D-AH-5411040-0-S | 1 |
| REF | | MODULE ECO HISTORY | B-MH-5411040-0-S | 2 |
| 1 | | ETCHED CIRCUIT BOARD | 50H039 | 3 |
| 1 | C2 | CAP. 4,400 uf 20V ELEC. | 1010424-00 | 4 |
| 2 | C3, C4 | CAP. 31,000 uf 50V ELEC. | 1010858-00 | 5 |
| 1 | C1 | CAP. 80,000 uf 25V ELEC. | 1009190-00 | 6 |
| 5 | D2, D3, D5, D6, D9 | DIODE IN4004 | 1105796-00 | 7 |
| 1 | D1 | DIODE R711 RECTIFIER | 1112723-00 | 8 |
| 2 | D7, D8 | VARISTOR V150 LA10 | 1311996-00 | 9 |
| 1 | D4 | DIODE NSS3514 RECTIFIER | 1110714-00 | 10 |
| 1 | K2 | RELAY, REED 48V 500MA | 1211179-00 | 11 |
| 1 | XK1 | RELAY, SOCKET. | 1212875-00 | 12 |
| 1 | K1 | RELAY, SIGMA 76A6-24DC-SCO | 1212793-00 | 13 |
| 1 | XK3 | RELAY, SOCKET P+B 27E129 | 1212874-00 | 14 |
| 1 | K3 | RELAY P+B R10-E1-X4-V700 | 1212719-00 | 15 |
| 1 | R1 | RES. 33 1/2W 5% | 1300195-00 | 16 |
| 1 | C5 | CAP. .01uf 600V | 1002938-00 | 17 |
| 1 | J1 | CONN, HEADER (9 PIN) | 1212619-01 | 18 |
| 1 | J2 | CONN, HEADER (22 PIN) | 1212204-05 | 19 |
| 1 | J3 | CONN, HEADER (14 PIN) | 1212619-02 | 20 |
| 1 | | HEAT SINK | 1210012-01 | 21 |
| 4 | | SCREW, PPH 6-32 X 1/2 | 9006024-01 | 22 |
| 2 | | WASHER, FLAT .375 O.D X .156 I.D X .036 | 9006653-00 | 23 |
| 4 | | NUT, KEP 6-32 X 1/4 AF | 9008185-00 | 24 |
| 1 | | NUT, KEP 8-32 | 9006563-00 | 25 |
| 1 | | HOLD DOWN SPRING (FOR K1) | 1213005-00 | 26 |
| 1 | | HOLD DOWN SPRING (FOR K3) | 1213006-00 | 27 |
| 8 | | SCREW, PPH 10-32 X 5/16 | 9006070-01 | 28 |
| 8 | | WASHER, FLAT .437 O.D X .187 I.D X .032 | 9006661-00 | 29 |
| 8 | | WASHER, LOCK INTERNAL TOOTH #10 | 9006635-00 | 30 |
| 1 | | SCREW, PPH 8-32 X 3/4 | 9006041-01 | 31 |
| A/R | | THERMAL COMPOUND | 9008268 | 32 |
| ~~A/R~~ | | ~~WIRE, BUS #24 AWG~~ | ~~1104360-01~~ | ~~33~~ |
| ~~A/R~~ | | ~~TUBING, TEFLON~~ | ~~1104530-00~~ | ~~34~~ |
| 2 | | WASHER, NYLON | 9006713 | 36 |
| A/R | | URETHANE, CLEAR | 49-01255 | 36 |
| QTY | REF. DESIGNATION | DESCRIPTION | PART NO. | ITEM NO. |

PARTS LIST

| IC TYPE | GND | +5V |
|---|---|---|
| GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE | | |

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL

ETCH BOARD REV. E

| DEC NO. | EIA NO. | DEC NO. | EIA NO. |
|---|---|---|---|
| | | | |

SEMICONDUCTOR CONVERSION CHART

DSGN N. Castellanos 3/Mar/77
DRWN N. CASTELLANOS
ENGR 5411040-00004 J
CHKD P. Castellanos 4/Mar/77
P. CASTELLANOS
APVD 5411040-00003 H
MFG N. FIELD 10-Nov-76
5411040-00002 F
P. CASTELLANOS 8/Nov/76
5411040-00001 E
P. Castellanos 3/Nov/76
CHK CHANGE NO. REV
REVISIONS

DSGN Sylvia DATE 19-FEB-75
CHKD DATE 3 FEB 76
ENGR DATE 3/11/76
MFGL ENG. DATE 12/2/76
PROD DATE 2/11/76
NEXT HIGHER ASSY

digital

TITLE POWER SUPPLY CAP BOARD

SIZE D | CODE CS | NUMBER 5411040-0-1 | REV. J
SCALE
SHEET 1 OF 2
DIST.

5411040-0-1 J

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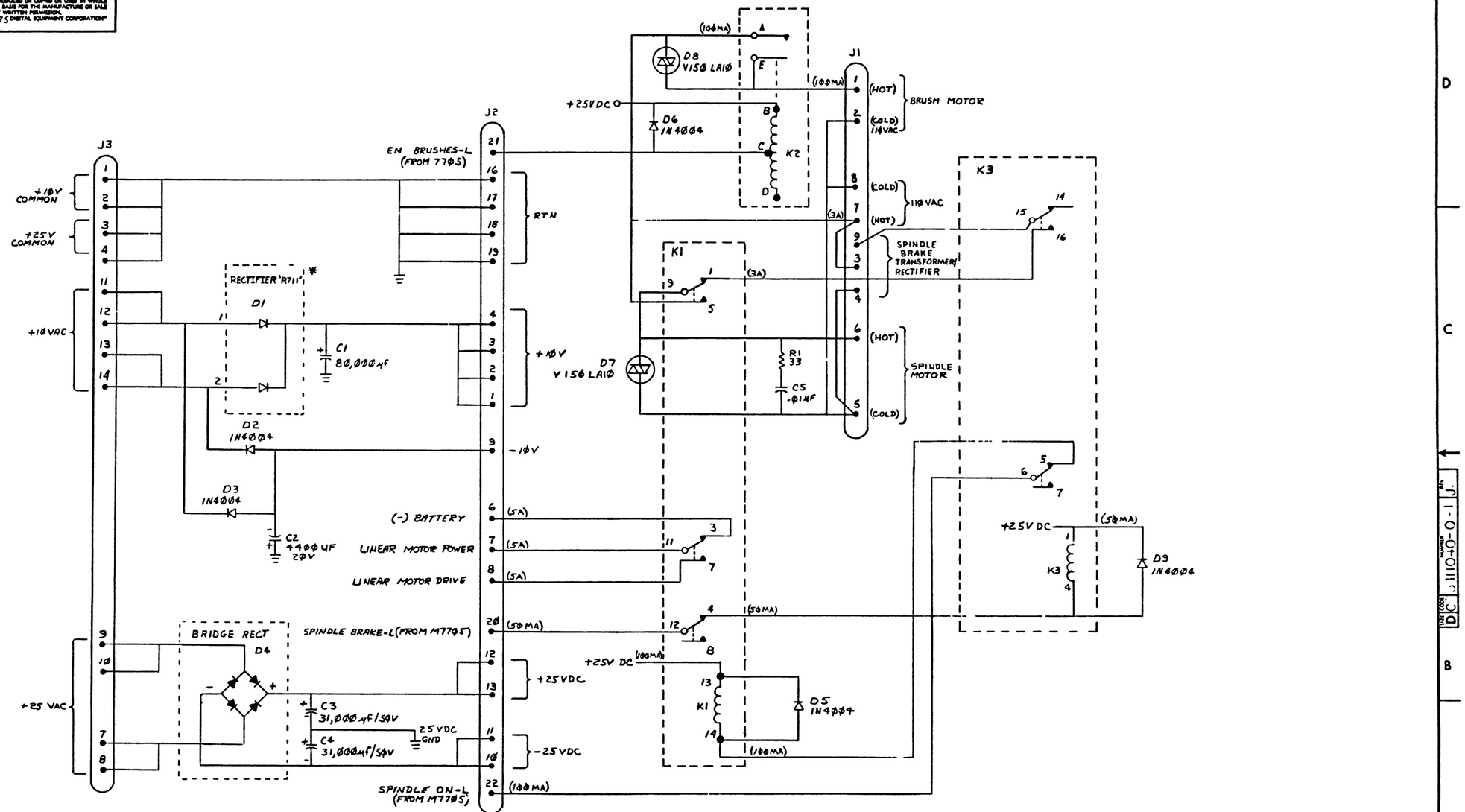


* COMPONENT IS MOUNTED ON HEAT SINK.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO | REV |

| | | | |
|---|---|---|---|
| TITLE | POWER SUPPLY CAP BOARD H767 | SIZE/CODE | NUMBER / REV. |
| | | D CS | 5411040-0-1 J |
| SCALE | SHEET 2 OF 2 | DIST. | |

ETCH: REV E

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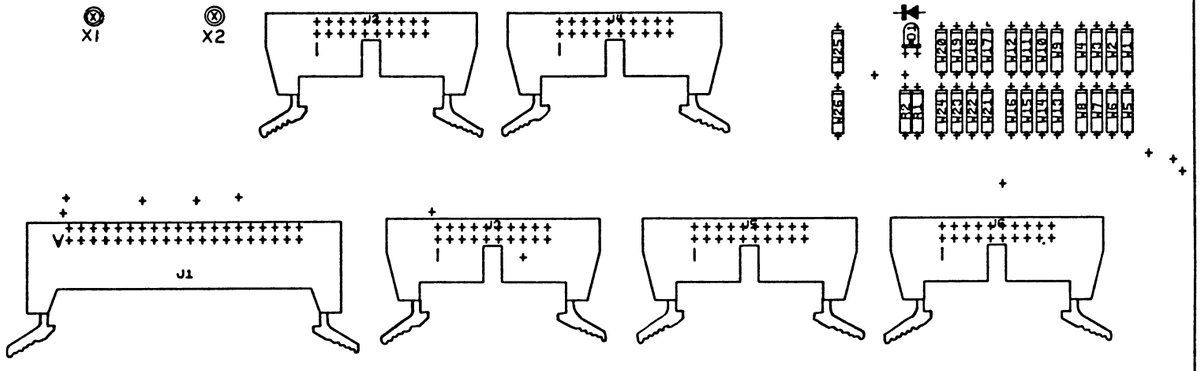
COMPONENT SIDE VIEW




NOTES:
1. 8 HOLES .0465 [+.000 -.0045] MAYNARD ONLY

| CHG | CHANGE NO | REV |
|---|---|---|
| | M9016-0-5 | F |

| SIGNATURES | DATE |
|---|---|
| DRN. P NICHOLS | 9-12-77 |
| CHK'D. | 11-9-77 |
| ENG. | |
| PROJ.ENG. | |
| PROD. | |
| SCALE 2/1 | |
| SHT. 1 OF 4 | |
| NEXT HIGHER ASSY. RK/6 | |

ETCH REV. E
P.C. DESIGN DATA BASE REV. E-P2

digital

TITLE RK06
CABLING BOARD

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | AH | M9016-0-5 | F |

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READ/WRITE

J1

| | |
|---|---|
| GND C | |
| DN2 | CYL ADD 7 H |
| DP2 | CYL ADD 6 H |
| DR1 | CYL ADD 8 H |
| DA2 | +5VB |
| DE2 | +25VB |
| DS2 | WR DATA L |
| DV2 | WR GATE L |
| DM1 | ALIGN SIGN + |
| DN1 | ALIGN SIGN - |
| DM2 | SET CURR FAULT L |
| DV1 | SET HEAD FAULT L |
| DL2 | SET MULT HD SEL L |
| GND B | |
| DB2 | -15V |
| DK2 | SET NO TRANS L |
| DJ2 | UNS TST |
| DD2 | +15V |
| DE2 | +25VA |
| DA2 | +5VA |
| DE1 | HD Ø L |
| DH2 | HD 1 L |
| DF2 | HD 2 L |
| GND A | |

J2

| | |
|---|---|
| DD2 | +15V |
| GND D | |
| DR2 | -5V |
| DA2 | +5VC |
| CV1 | WR GATE L |
| CU2 | RD DATA 2 L |
| CU1 | RD DATA 1 L |

POSITIONER AREA

J3

| | |
|---|---|
| CR2 | HD LD #2 |
| CS2 | HDLD COMMON |
| CP2 | HD LD #1 |
| CN2 | HOME L |
| CE2 | +25V |
| CM2 | HOME LOCK RELEASE L |
| CL2 | LIM PA |
| CK2 | +COS PA |
| CJ2 | -SIN PA |
| CD2 | +15V |
| CH1 | LED CATHODE |
| CB2 | -15V |
| CF1 | GLASS XDR COM |
| CA2 | +5V |

POWER SUPPLY

J4

| | |
|---|---|
| BU1 | EMITTER TEST PT |
| BV1 | SPARE |
| CE1 | AC LOW L |
| CD1 | SPINDLE ON L |
| CC1 | EN BRUSH L |
| CB1 | SPINDLE BRAKE L |
| CA1 | REMOTE SENSE C |
| BV2 | CURRENT CMD |
| BU2 | REMOTE SENSE A |
| BS2 | REMOTE SENSE B |
| BR2 | DC LOW L |

CHASSIS AREA

J5

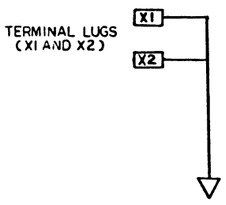
| | |
|---|---|
| BN2 | BRUSH HOME SW L |
| BP2 | BRUSH HOME SW H |
| BM2 | |
| BL2 | DR IN PLACE SOL L (NOT USED) |
| BE2 | +25V |
| BK2 | DR IN PLACE L (NOT USED) |
| BJ2 | CART PRES L |
| BH2 | SPARE |
| BF2 | LID LOCKED L |
| BE2 | +25V |
| BE1 | LID LOCKED |
| BC1 | SPINDLE SPEED SOL L |
| BB1 | LED CATHODE |
| BA1 | LED ANODE |

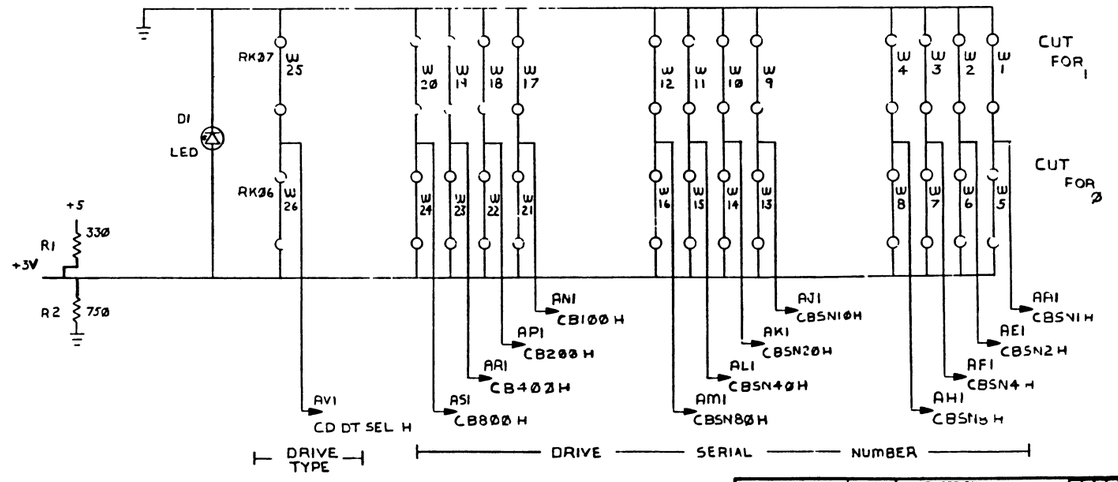
FRONT PANEL

J6

| | |
|---|---|
| AR2 | U Ø L |
| AS2 | U 1 L |
| AP2 | U 2 L |
| AU2 | RUN (1) H |
| AN2 | WR L H |
| AV2 | STOPPED LITE H |
| AM2 | QUAL L |
| AL2 | RUN SW L |
| AA2 | +5V |
| AK2 | READY (Ø) H |
| AB1 | FAULT H |
| AJ2 | SW EN B L |
| AC1 | SW EN A H |
| AH2 | WR PROT SW L |
| AD1 | |
| AF2 | DR SEL AH |
| AE2 | DR SEL BH |

TERMINAL LUGS (X1 AND X2)




NOTE: ONE JUMPER OF EACH PAIR MUST BE CUT, OTHERWISE +3V WILL BE SHORTED TO GROUND. LED DI, WHEN LIT, INDICATES +3V IS NOT SHORTED TO GROUND.

| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO | REV | |
| [illegible] | M9216-0000 | C | |
| M.A.T.ELLANO | 7-75 | | |
| M.CASTELLANOS | M9016-0000 | D | |
| M CASTELLANOS | 3-Dec-76 | | |
| M. CASTELLANOS | 25-Jan-76 | | |
| M CASTELLANOS | M9016-0CCC03 | E | |
| M CASTELLANOS | 19-OCT-77 | | |
| M CASTELLANOS | | | |
| D Douglas | M9016-000004 | F | |
| M CASTELLANOS | 1/18/77 | | |
| M Castellanos | 11/11/77 | | |

| | |
|---|---|
| DRN | 2-25-75 |
| CHK D | 17FEB76 |
| ENG | 18 MAR 76 |
| PROJ ENG | 18 MAR 76 |
| PROD | |
| NEXT HIGHER ASSY | D-UA-M9016-Ø-Ø |
| SCALE | 1 |
| SHEET | 1 OF 1 |

FIRST USED ON: RKØ6

digital

TITLE: RKØ6 CABLING BOARD

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | CS | M9016-Ø-1 | F. |

DIST

DEC FORM NO. DNS 102 D

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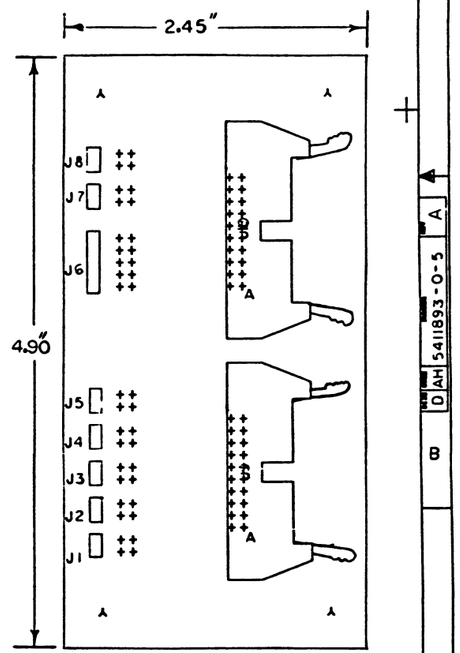
COMPONENT SIDE VIEW




NOTES:

| CHK | CHANGE NO | REV |
|---|---|---|
| EFC | 5411-3-1 | A |

| HOLE DATA | + | A | X | ◆ | Z | M | ▲ | ▽ | ◆ | * |
|---|---|---|---|---|---|---|---|---|---|---|
| SYMBOL | | | | | | | | | | |
| FIN HOLE SIZE | .042 | .218 | | | | | | | | |
| PLATED | X | | | | | | | | | |
| NON PLATED | | X | | | | | | | | |
| QTY. | 78 | 4 | | | | | | | | |
| ○=OFF GRD HLE | | | | | | | | | | |
| DRILL SIZE | | | | | | | | | | |

| BOARD FABRICATION INFORMATION |
|---|
| PANEL SIZE 5.055 X 11.750 |
| PANEL DATA DWG. #D-MD-7605819-0-0 |
| PANEL WAT'L .052 THK. |
| QTY. OF LAYERS 2 |
| COPPER THICKNESS 1 OZ 2 SIDES |
| PTH. X PRINT AND ETCH |

| SIGNATURES | DATE |
|---|---|
| DRN. [illegible] | 5-9-7 |
| CHK'D. [illegible] | 5-23-7 |
| ENG. [illegible] | 5-28-7 |
| PROJ. ENG. [illegible] | 5-28-7 |
| PROD. | |
| SCALE 2:1 | |
| SHT. 1 OF 4 | |
| ETCH REV A FIRST USED ON RKO6 | |

digital

TITLE RKO6
TRANSITION BOARD

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | AH | 5411893-0-5 | A |

MS#80764

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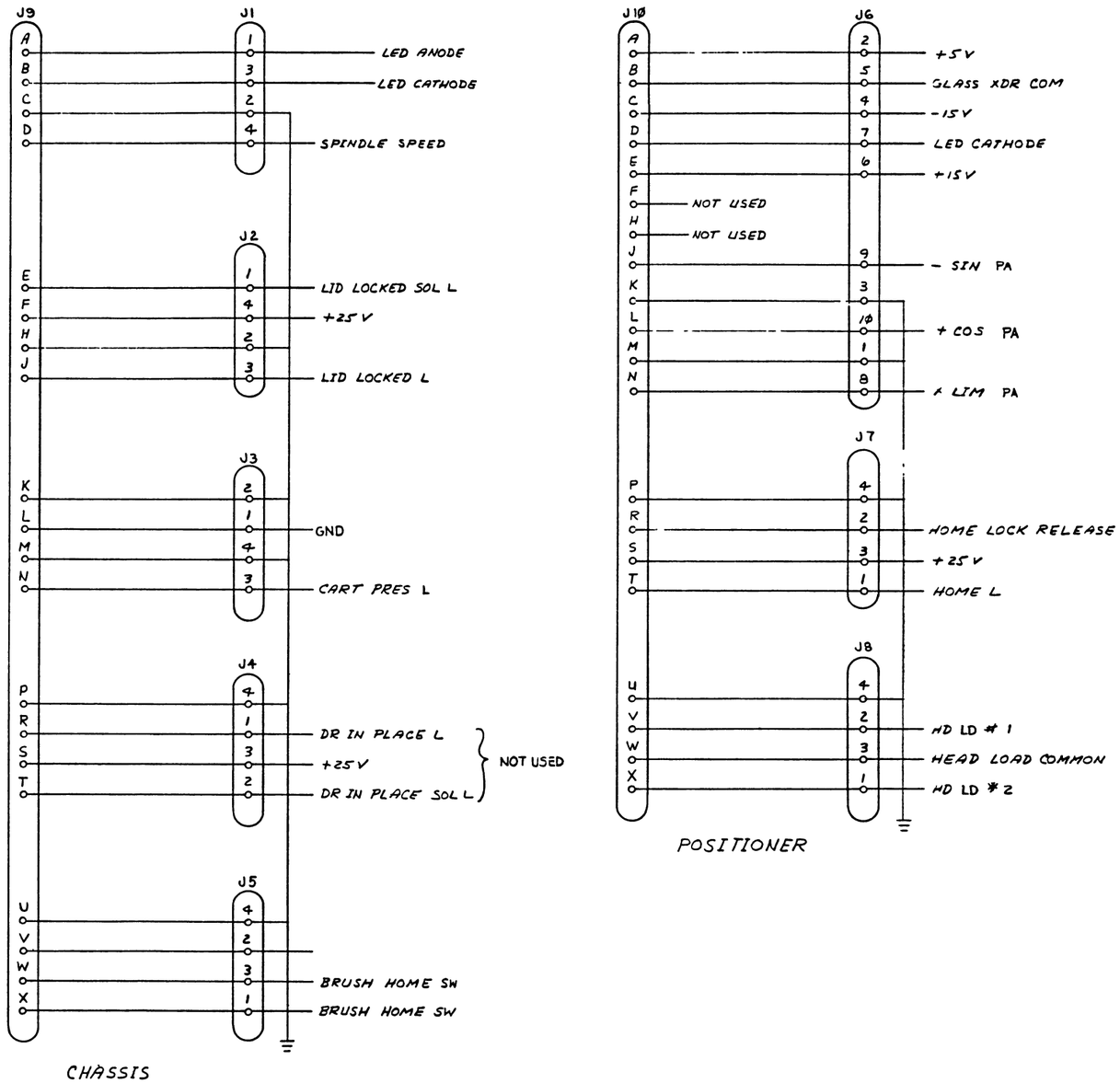


| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO. | REV. | |
| [illegible] | 5411893-00001 | A | As Planned 28 SEP 76 |
| | M. CASTELLANOS | | M Castellanos OCT 76 |

| | | |
|---|---|---|
| ETCH BOARD REV | A | |
| DRN H. Pierce | 10 AUG 76 | FIRST USED ON RKØ6 |
| CHK'D [illegible] | 18 MAR 76 | |
| ENG. E [illegible] | 18 MAR 76 | TITLE RKØ6 TRANSITION BOARD |
| PROJ ENG. E [illegible] | 18 MAR 76 | |
| PROD. C [illegible] | 19 MAR 76 | |
| NEXT HIGHER ASSY. | | SIZE D CODE CS NUMBER 5411893-0-1 REV. A |
| D-UA-5411893-0-0 | | |
| SCALE — | SHEET 1 OF 1 | DIST. |

digital

DEC FORM NO. DRB 1010-0

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| DRAWING NUMBER | INIT REL | AUTOMATIC WIRE TESTER (AWT) REVISION STATUS | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T3 | A | B | C | D | E | E | F | H | H | J | J | J | K | I | | | | | |
| K-WL-7012474-0-DBW | * | A | B | C | D | E | E | F | H | H | J | J | J | K | I | | | | | |
| D-AD-7012474-0-0 | * | A | B | B | B | C | D | D | D | D | D | E | F | H | J | | | | | |
| D-CS-5411864-0-1 | C | C | C | C | C | C | C | C | C | D | D | D | D | D | E | | | | | |
| ~~D-IA-7011626-0-0~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~B~~ | ~~B~~ | | | | | | | | | |
| ~~A-DC-7411881-0-0~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | | | | | | | | | |
| K PL 7012474-0-DBP | | | | | | | | | | | | | | | J | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| [illegible] | 7012474-00001 | A |
| MC | 7012474-00002 | B |
| RW | 7012474-00003 | C |
| MC | 7012474-00004 | D |
| MC | 7012474-00005 | E |
| PS | 7012474-00007 | F |
| [illegible] | 7012474-00008 | H |
| [illegible] | 7012474-00009 | J |
| MC | 5411864-00002 | K |
| MC | 7012474-00010 | L |
| MD | 7012474-00013 | M |
| [illegible] | 7012474 ML004 | N |
| [illegible] | 7012474-ML015 | P |
| JMN | 7012474-ML016 | R |

| | | |
|---|---|---|
| DRN. W. Major | DATE 20 APR 76 | digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS |
| CHK'D. W. Major | DATE 20 APR 76 | TITLE RKØ6 (SINGLE PORT) AWT REVISION STATUS |
| ENG. [signature] | DATE 4/20/76 | |
| PROJ. ENG. [signature] | DATE 4/21/76 | |
| PROD. [signature] | DATE 4/21/76 | |
| FIRST USED ON RKØ6 | | SIZE A · CODE WT · NUMBER 7012474-0 · REV R |
| SCALE — | | DIST. |
| SHEET 1 OF 1 | | |

DRA 123

DEC 16-(325)-1097-N174

M L

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NOTES:

1. THE ROUTING OF SOME WIRES ARE CRITICAL. ANY ROUTING CHANGE MUST HAVE ENGINEERING APPROVAL.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| [illegible] | 7012474-00001 | A |
| MC | 7012474-00002 | B |
| R.W. | 7012474-00003 | C |
| MC | 7012474-00004 | D |
| MC | 7012474-00005 | E |
| [illegible] | 7012474-00008 | F |
| [illegible] | 7012474-00009 | H |
| MC | 7012474-00010 | J |
| D.A | 7012474-ML015 | K |

| FIRST USED ON OPTION MODEL | QTY. | DESCRIPTION | PART NO. | ITEM NO. |
|---|---|---|---|---|
| RKØ6 | | PARTS LIST | | |

| | | |
|---|---|---|
| DRN. W. Major | DATE 20 APR 76 | digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS |
| CHK'D. W. Major | DATE 20 APR 76 | TITLE WIRE LIST (SINGLE PORT) |
| ENG. [illegible] | DATE 4/20/76 | |
| PROJ. ENG. [illegible] | DATE 4/20/76 | |
| PROD. [illegible] | DATE 4/20/76 | |
| NEXT HIGHER ASSEMBLY D-AD-7012474-0-0 | | |
| SCALE ++ | | |
| SHEET 1 OF 1 | | |

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| K | WL | 7012474-0-DBW | K |
| DIST. | | | |

DEC FORM NO.
DRB 109

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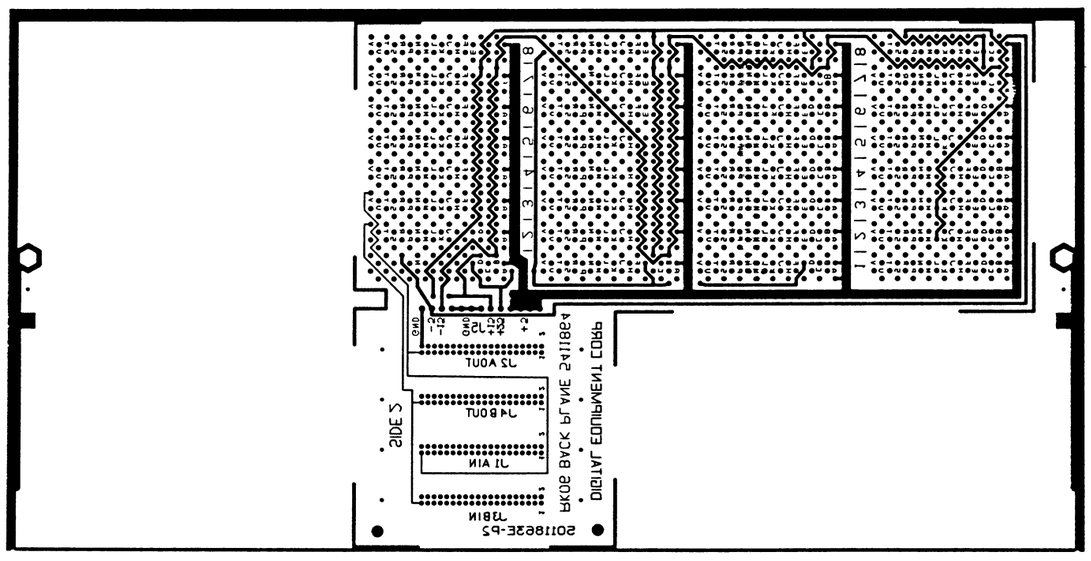


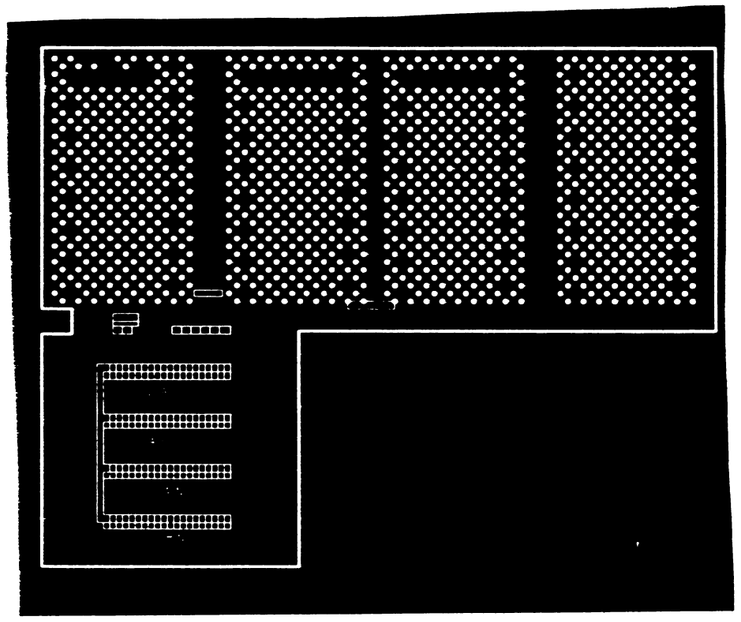

NOTES:

| REV | CHANGE NO | CHK |
|---|---|---|
| D | SHIMS - 0000 2 REVISED & REDRAWN | BMC |

| SIGNATURES | DATE |
|---|---|
| DRN. Bud G Hunt | 7 SEPT 77 |
| CHK J.T. Hafer | 27-SEP-77 |
| ENG. [illegible] | [illegible] |
| PROJ. ENG. [illegible] | [illegible] |
| PROD. | |

digital

TITLE
RK06 BACK PLANE

SCALE 1/1 | SIZE D | CODE CS | NUMBER 5411864-Ø-1 | REV D
SHT. 1 OF 1
ETCH REV E | FIRST USED ON RK06

1 MS#.

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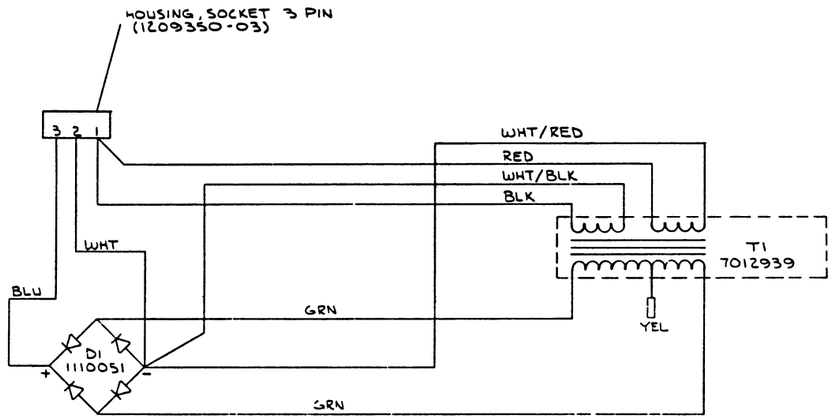


| REVISIONS | REV. | CHANGE NO. | CHK |
|---|---|---|---|
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| | | |
|---|---|---|
| DRN. | | |
| CHK'D | | |
| ENG. | | 23 JULY 76 |
| PROJ. ENG. | | 23 JULY 76 |
| PROD | | |
| NEXT HIGHER ASSY. | | |
| C-AD-7012940-0-0 | | |
| SCALE: NONE | | |
| SHEET 1 OF 1 | | |

FIRST USED ON 2K06 digital

TITLE
SPINDLE BRAKE ASSY
(CIRCUIT SCHEMATIC

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | CS | 7012940-0-1 | |

DIST.

BASE CODE D CS 7012940 0 1 REV

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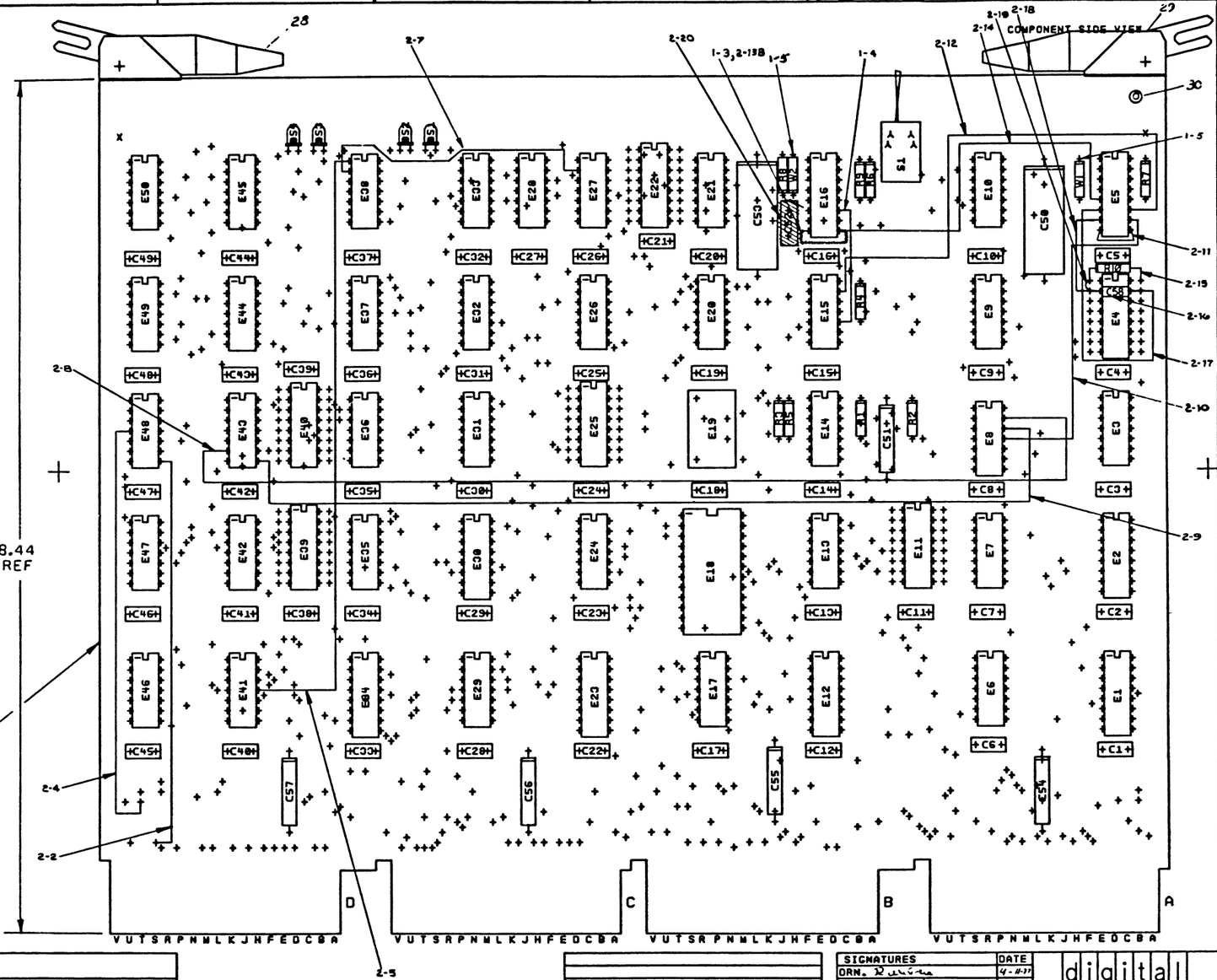
## REWORK INSTRUCTIONS

### ECO #1

1-1. CUT ETCH AT E16-9, SIDE 2
1-2. CUT ETCH AT E16-11, SIDE 2
1-3 ADD WIRE FROM E16-8 TO E16-9
1-4. ADD WIRE FROM E15-10 TO E16-11
1-5. REMOVE DLAND D2 AND REPLACE WITH JUMPERS W1 & W2 RESPECTIVELY

### ECO #2

2-1. TRACE ETCH FROM DS1 TO SIDE 2 OF THE MODULE, CUT ETCH JUST ABOVE FEED THROUGH.
2-2. RUN WIRE FROM DS1 FEED THROUGH TO E48-8.
2-3. TRACE ETCH FROM DS2 TO SIDE 1 OF MODULE, CUT ETCH BETWEEN FEED THROUGHS.
2-4. RUN WIRE FROM DS2 FEED THROUGH TO E48-4.
2-5. RUN WIRE FROM E41-11 TO E38-1.
2-6. CUT ETCH AT E27-2 ON SIDE 2 OF THE MODULE.
2-7. ADD WIRE FROM E38-2 TO E27-2.
2-8. ADD WIRE FROM E43-6 TO E8-13.
2-9. ADD WIRE FROM E43-8 TO E8-12.
2-10. ADD WIRE FROM E8-11 TO E5-10.
2-11. ADD WIRE FROM E5-9 TO E5-8.
2-12. ADD WIRE FROM E5-11 TO E15-13.
2-13A. IF MODULE HAS ETCH TO E16-9, CUT ETCH TO E16-9. (ON SIDE 2 OF MODULE)
2-13B. IF MODULE HAS WIRE FROM E16-9 TO GROUND, REMOVE WIRE FROM E16-9 TO GROUND.
2-14. ADD WIRE FROM E5-5 TO E16-9.
2-15. INSERT A 10K RES. (R10) INTO E4-1 TO E4-16.
2-16. INSERT A 1000 PF CAP (C58) INTO E4-2 TO E4-15.
2-17. ADD WIRE FROM E5-6 TO E4-15.
2-18. ADD WIRE FROM E5-7 TO E4-2.
2-19. ADD WIRE FROM E4-1 TO E4-2.
2-20. REMOVE C52 FROM MODULE.




NOTES:

| CHK | CHANGE NO | REV |
|---|---|---|
| | M7730-1 | C |
| | M7730-2 | D |

ETCH REV. C
P.C. DESIGN DATA BASE REV. — CL

| SIGNATURES | DATE |
|---|---|
| DRN. | 4-11-77 |
| CHK'D. | 4-11-77 |
| ENG. | |
| PROJ. ENG. | |
| PROD. | |
| SCALE 2:1 | |
| SHT. 1 OF 3 | |
| NEXT HIGHER ASSY. B-DD-M7730-0 | |

digital

TITLE RK06 DUAL PORT LOGIC

| SIZE | CODE | NUMBER | REV |
|---|---|---|---|
| D | UA | M7730-0-0 | D |

MS# 104635

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DPI REQUEST DRIVE A H
DPI CLOCK L
DPI PORT A USING DRIVE (I) L
DPI PORT A USING DRIVE (Φ) L
DPI PORT A USING DRIVE(Φ) H
'PORT A USING DRIVE LITE'
'PORT A PORT REQUEST LITE'
DPI PORT REQUEST A(I) H
DPI PORT REQUEST A(I) L
DPI PORT REQUEST B(I) H
DPI PORT REQ B AFTER A(I) H
DPI PORT REQ B AFTER A(I) L
I&T1 SET DR SEL A L
DPI PORT B USING DRIVE (Φ) L
I&T4 T2 A L
I&T4 T3 A L
I&T1 RELEASE COMM A L
DP3 BUFF PWR UP L
DP3 DRV NOT REL TMD OUT L
DP3 SW EN A H
DP2 GTD INH PORT A 1 SEC L
DPI PORT B USING DRIVE (Φ) H
I&T4 T4 A H
I&T1 RELEASE COMM A L
DP3 BUFF PWR UP L
DP3 CLEAR PORT REQ A L

DPI REQUEST DRIVE B H
DPI CLOCK H
DPI PORT B USING DRIVE (I) L
DPI PORT B USING DRIVE (Φ) L
DPI PORT B USING DRIVE(Φ) H
'PORT B USING DRIVE LITE'
'PORT B PORT REQUEST LITE'
DPI PORT REQUEST B(I) H
DPI PORT REQUEST B(I) L
DPI PORT REQUEST A(I) H
DPI PORT REQ A AFTER B(I) H
DPI PORT REQ A AFTER B(I) L
I&T1 SET DR SEL B L
DPI PORT A USING DRIVE (Φ) L
I&T4 T2 B L
I&T4 T3 B L
I&T1 RELEASE COMM B L
DP3 BUFF PWR UP L
DP3 DRV NOT REL TMD OUT L
DP3 SW EN B H
DP2 GTD INH PORT B 1 SEC L
DPI PORT A USING DRIVE (Φ) H
I&T4 T4 B H
I&T1 RELEASE COMM B L
DP3 BUFF PWR UP L
DP3 CLEAR PORT REQ B L

+5V AA2,BA2,CA2,DA2
C1-C49 .01μf 100V
C54-C57 6.8μf 35V
C51 6.8μf 35V
R1 33Φ
R2 75Φ
AC2,BC2,CC2,DC2, AT1,BT1,CT1,DT1

OUT IN E19
R3 560
DPI CLOCK H
DPI CLOCK L
BV1
R4 1K
BV2
R5 1K
+5V

+5V R6 1K
S1
DU1
DPI DP TEST L
PORT B ADDRESS INVERTING SWITCH
THIS SWITCH IS USED WHEN THE DUAL ACCESS SYSTEM IS TESTED WITH 1 PROCESSOR

74154 E18
DP4 CLK CTR 3 H
DP4 CLK CTR 2 H
DP4 CLK CTR 1 H
DP4 CLK CTR Φ H
DP4 SHORT CP L
DP4 COUNTER EN L
STB1 STBΦ

DPI T15 H
DPI T14 H
DPI T13 L
DPI T12 L
DPI TIΦ H
DPI TIΦ L
DPI T9 L
DPI T7 L
DPI T6 H
DPI T5 H
DPI T5 L
DPI T4 H
DPI T3 H
DPI T3 L

| REVISIONS | | | |
|---|---|---|---|
| ZONE | CHANGE NO. | BY | REV |
| CHK | M7730-00001 | R. WOLFF 1-3-78 | A |
| CHK | M7730-00002 | R. WOLFF 11 July 78 | D |

| | | |
|---|---|---|
| DRN. | | 5 11 77 |
| CHK'D | | 14 APR 77 |
| ENG. | | 21 APR 77 |
| PROJ. ENGR. | | 5 May 77 |
| PROG. | | 10 May 77 |
| NEXT HIGHER ASSY. | B-DD-M7730-0 | |
| SCALE | | |
| SHEET | 1 OF 4 | |

FIRST USED ON RKØ6

digital

TITLE RKØ6 DUAL PORT LOGIC (DPI)

| SIZE | CODE | NUMBER | REV. |
|---|---|---|---|
| D | CS | M7730-0-1 | D |

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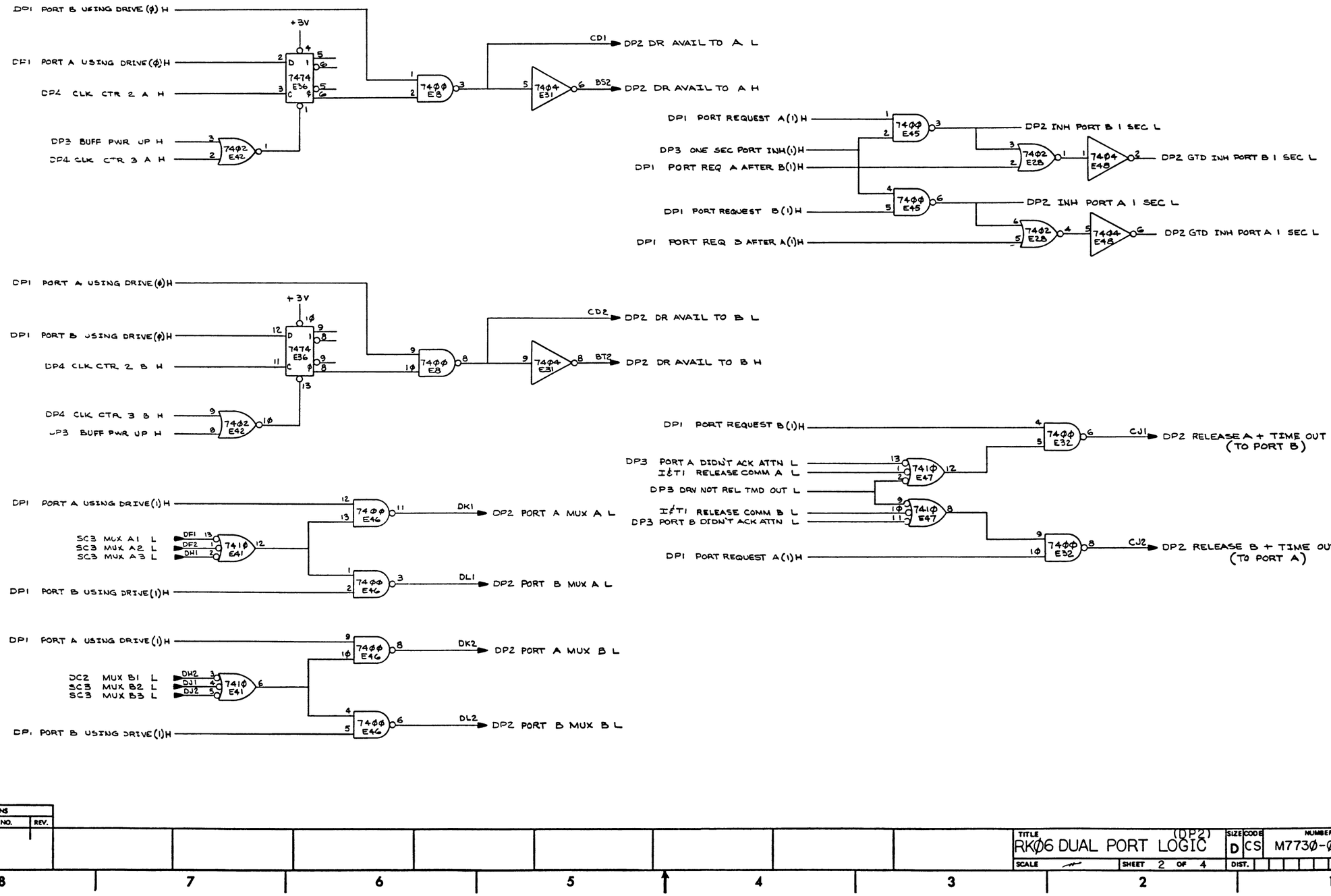


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6 DUAL PORT LOGIC (DP2) | D | CS | M773Ø-Ø-1 | D |
| SCALE — SHEET 2 OF 4 DIST. | | | | |

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DP1 T3 H
DP3 BUFF 1 H
74ØØ E9
RELEASE DRIVE L
PORT RELEASED L
+5V
R7 22K
C5Ø 15Ø µf
DP3 RELEASE DRIVE L
DP3 DRV NOT REL TMD OUT L
74ØØ E10
74123 E5
DP3 ONE SEC PORT INH H
DP1 PORT REQUEST A(1)L
DP1 PORT REQUEST B(1)L
74ØØ E9
DP3 UNSUCCESSFUL SEIZURE H
DP1 T5 L
DP1 TIØ L
74ØØ E45
741Ø E41
DP4 BUFF 1 H
C/N I/O HOME L
BK2
DC2 READY(I)H
BC1
DP3 BUFF PWR UP L
7474 E27
DP3 SFTWR UNLD + RECAL L
7404 E38
ONE SECOND SAFETY TIMER
+5V
R8 22K
C5B 15Ø µf
DP1 T4 H
DP1 T5 L
7423 E16
R9 1ØK
74ØØ E8
DP3 DRV NOT REL TMD OUT L
[+3V]
R1Ø 12K
+5V
C58 12ØØPF
DP3 BUFF PWR UP L
DP1 T3 L
7408 E53
REQUEST DRIVE 'A' L
REQUEST DRIVE 'B' L
74ØØ E8
DP3 SW EN A H
DP3 SW EN B H
7408 E44
+3V
IET4 CLR ERR A L
CA1
DP1 PORT B USING DRIVE(I)H
7402 E24
IET4 CLR ERR B L
CB1
DP1 PORT A USING DRIVE(I)H
7402 E24
BU1
DP3 CLR ERR L

+3V
DC5 PWR UP L
AA1
7414 E3
7437 E14
DP3 BUFF PWR UP L
DP3 BUFF PWR UP H

DP3 BUFF PWR UP L
DP1 PORT B USING DRIVE(Ø)H
DP1 PORT REQUEST A(I)H
DP2 INH PORT B 1 SEC L
7408 E1Ø
7474 E15
DP1 CLOCK H
DP1 CLOCK L
74ØØ E9
DP3 CLR PORT REQ A L
DP1 PORT REQ B AFTER A(1) H
74ØØ E32
DP3 PORT A DIDN'T ACK ATTN L

DP3 BUFF PWR UP L
DP1 PORT A USING DRIVE(Ø)H
DP1 PORT REQUEST B(I)H
DP2 INH PORT A 1 SEC L
7408 E1Ø
7474 E21
DP1 CLOCK H
DP1 CLOCK L
74ØØ E9
DP3 CLR PORT REQ B L
DP1 PORT REQ A AFTER B(1) H
74ØØ E32
DP3 PORT B DIDN'T ACK ATTN L

C/N I/O SW EN A L
AM1
7414 E3
DP3 SW EN A H
C/N I/O SW EN B L
AM2
7414 E3
1Ø
DP3 SW EN B H

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|---|---|---|
| CHK | CHANGE NO. | REV. |
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| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6 DUAL PORT LOGIC (DP3) | D | CS | M773Ø-Ø-1 | D |
| SCALE | SHEET 3 OF 4 | DIST. | | |

8 7 6 5 4 3 2 1

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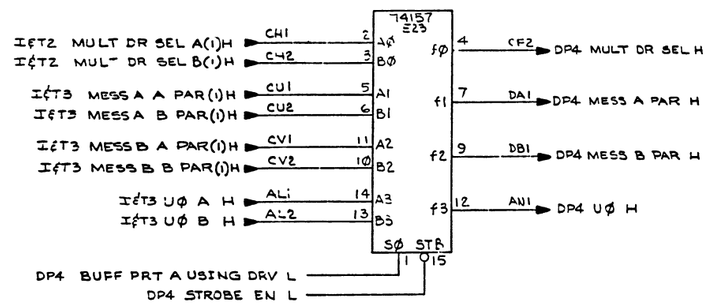


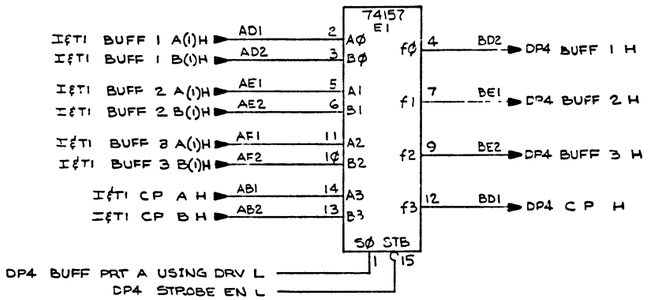


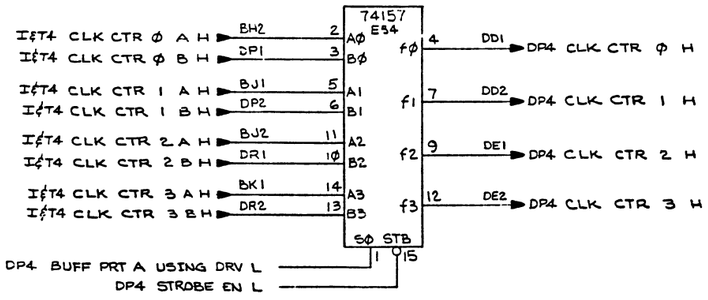


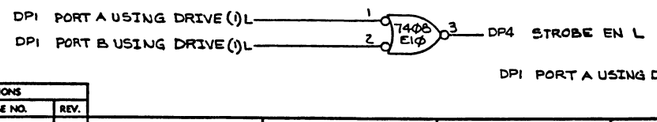


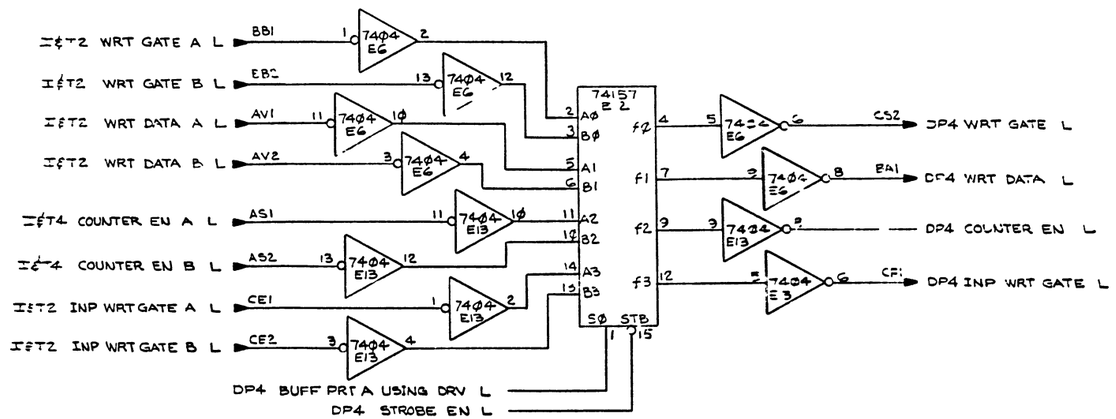


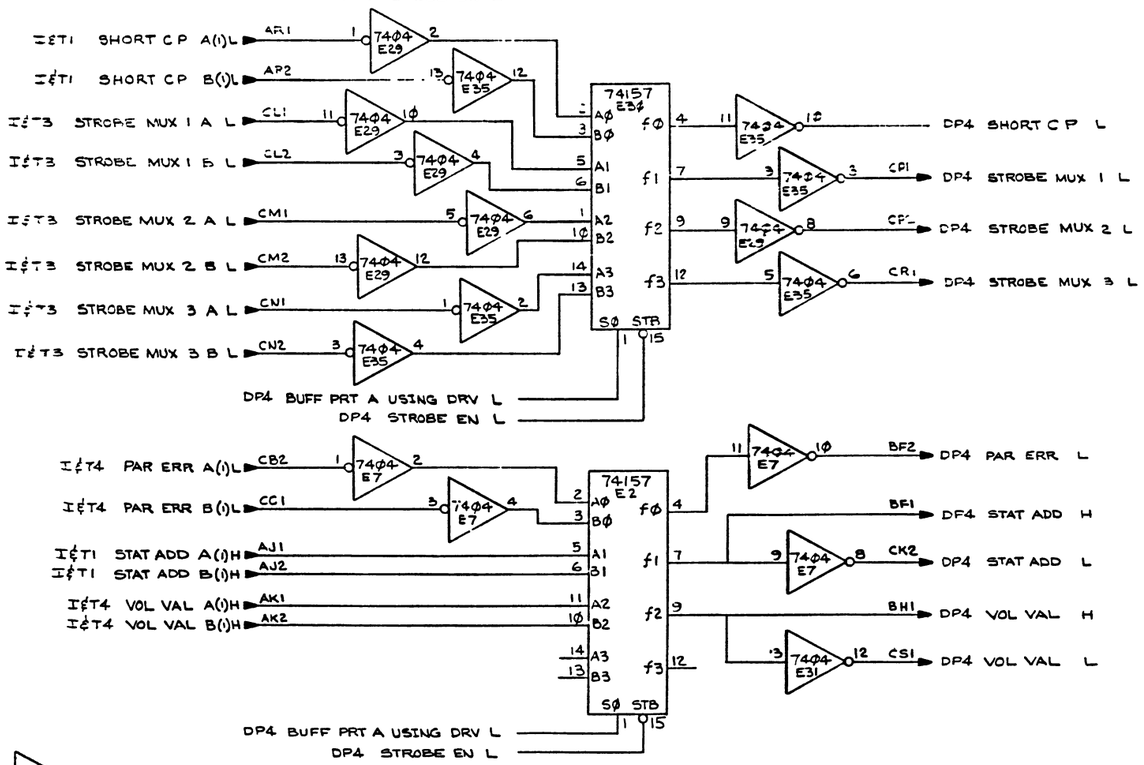


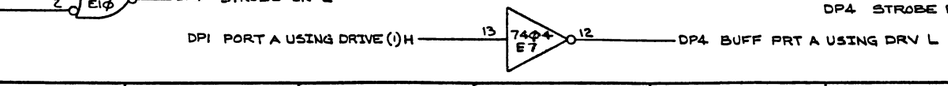


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| RKØ6 DUAL PORT LOGIC (DP4) | D | CS | M7730-Ø-1 | D |
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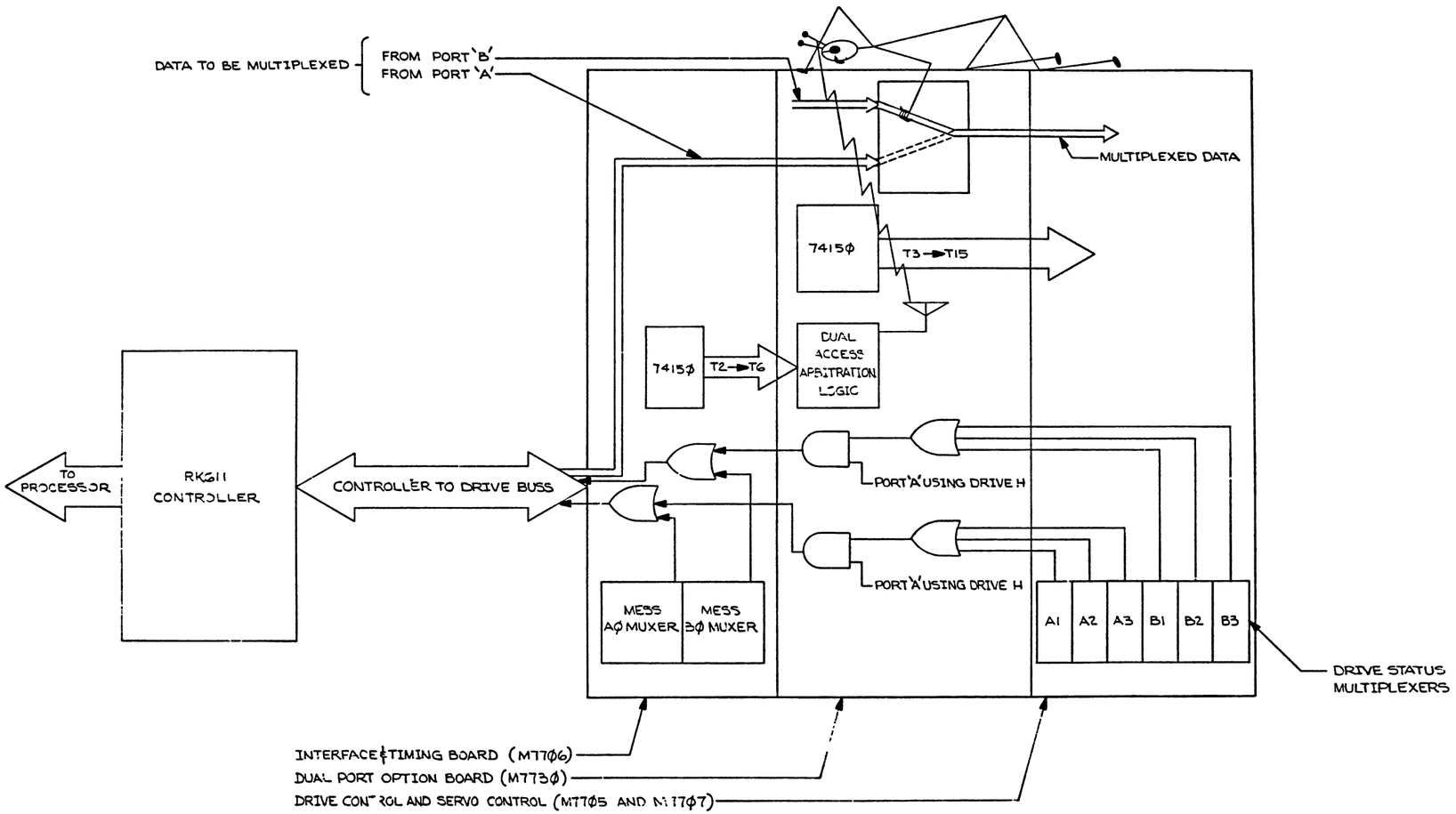


DRIVE ARCHITECTURE WITH DUAL ACCESS OPTION INSTALLED

| REVISIONS | CHANGE NO. | REV |
|---|---|---|
| | | |

| | | |
|---|---|---|
| DRN [illegible] | 4-25-77 | FIRST USED ON RKØ6 |
| CHK'D [illegible] | 4-29-77 | digital |
| ENG. [illegible] | 5 may 77 | TITLE (RKØ6) DUAL PORT LOGIC BLOCK DIAGRAM |
| PROJ. ENG. [illegible] | 5 may 77 | |
| PROG [illegible] | 5 may 77 | |
| NEXT HIGHER ASSY | | |
| B DD M773Φ-Φ | | |
| SCALE | | SIZE D · CODE BD · NUMBER M773Φ-Φ-2 · REV. B |
| SHEET 1 OF 3 | | DIST. |

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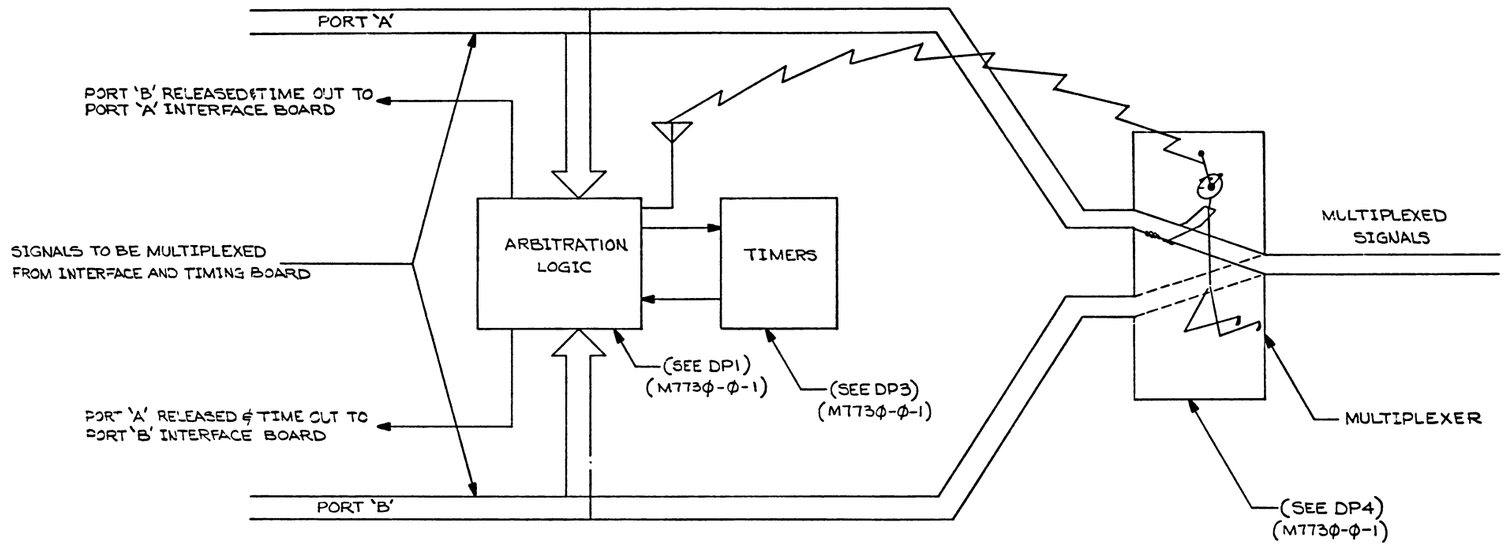


| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
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| | | | |
|---|---|---|---|
| TITLE (RKØ6) DUAL PORT LOGIC BLOCK DIAGRAM | SIZE D | CODE BD | NUMBER M773Ø-Ø-2 REV. B |
| SCALE | SHEET 2 OF 3 | DIST. | |

SIZE D CODE BD NUMBER M7730-Ø-2 REV. B

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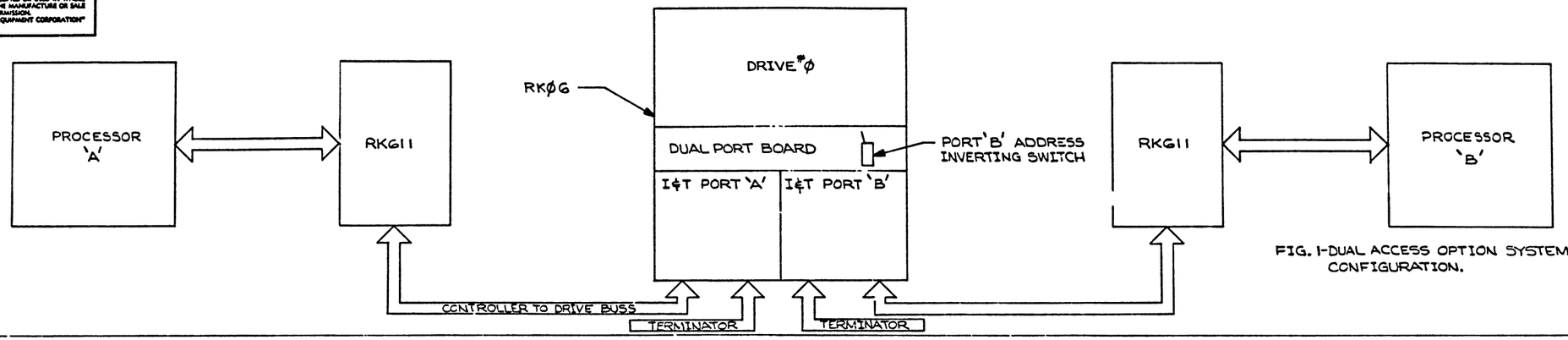


FIG. 1-DUAL ACCESS OPTION SYSTEM CONFIGURATION.

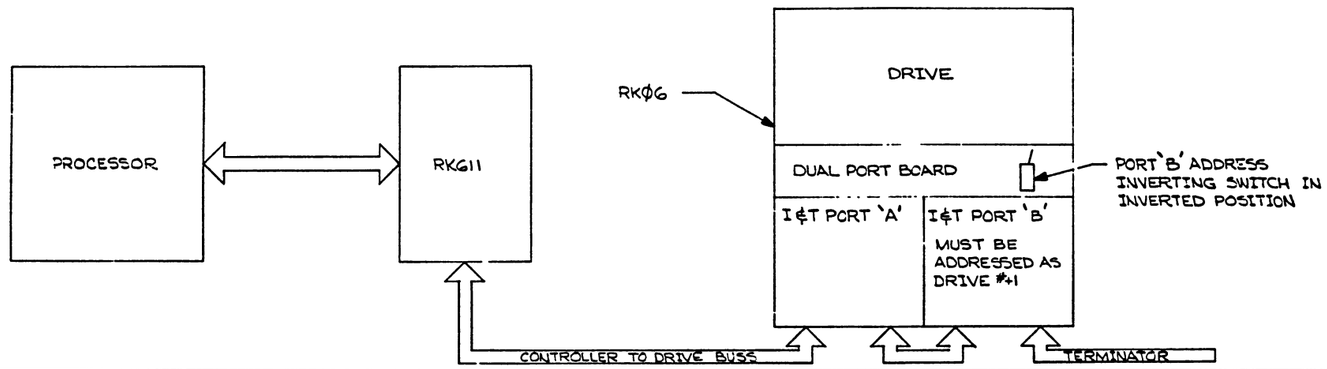


FIG. 2-DUAL ACCESS OPTION RECABLED TO ONE PROCESSOR. THIS CONFIGURATION IS FOR DIAGNOSTIC PURPOSES ONLY

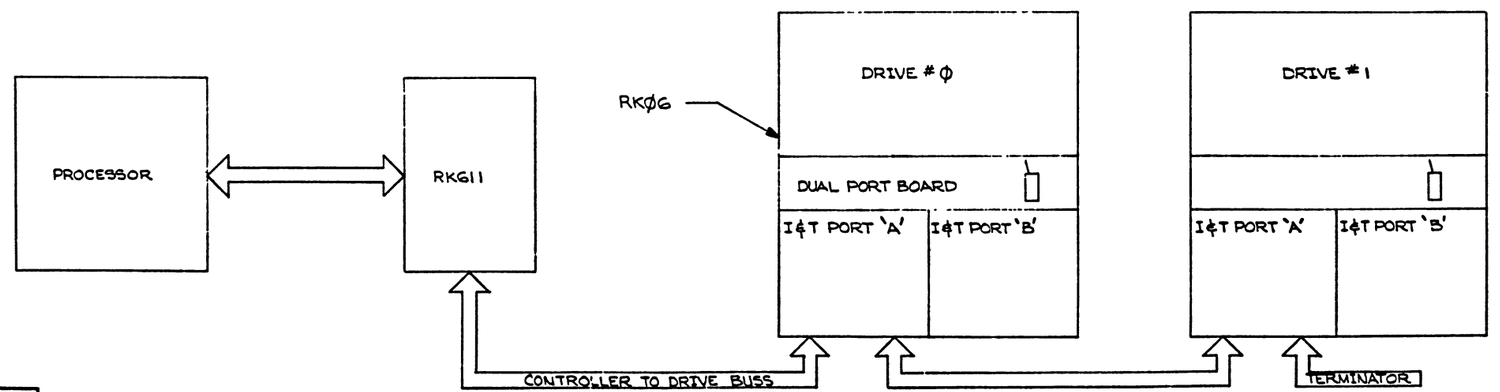


FIG 3- WITH THE FIG. 2 CONFIGURATION, THE DRIVE APPEARS TO THE SOFTWARE AS TWO DRIVES. HOWEVER, IF THE CONTROLLER HAS SEIZED ONE OF THE DRIVES, ATTEMPTING TO SEIZE THE OTHER DRIVE WILL FIND IT UNAVAILABLE. FOR THE FIG. SHOWN, A DRIVE I.D. NUMBER OF Ø WAS USED.

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| (RKØ6) DUAL PORT LOGIC BLOCK DIAGRAM | D | BD | M773Ø-Ø-2 | B |
| SCALE | SHEET 3 OF 3 | | DIST. | |

M773Ø-Ø-2 B

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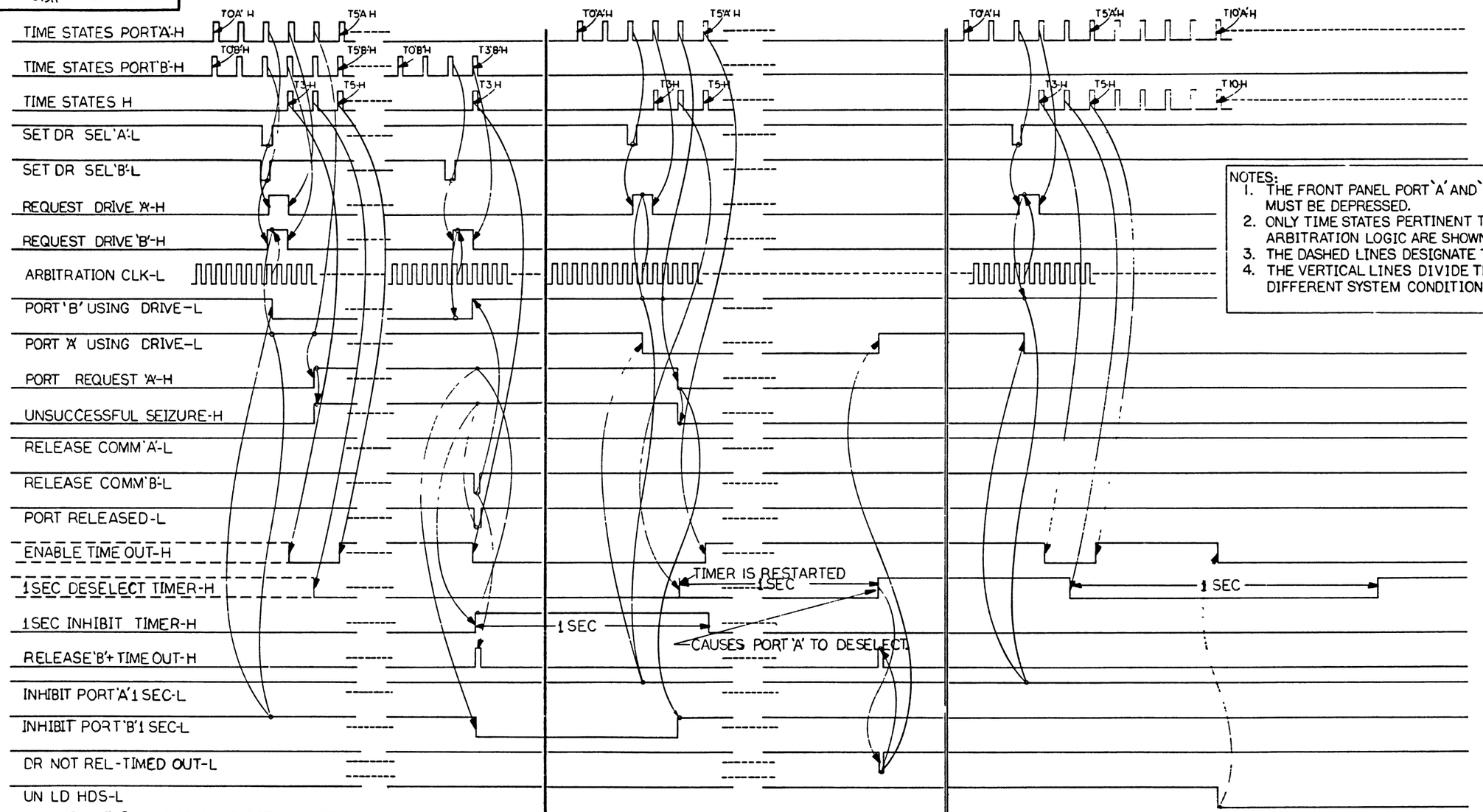


NOTES:
1. THE FRONT PANEL PORT 'A' AND 'B' ENABLE SWITCHES MUST BE DEPRESSED.
2. ONLY TIME STATES PERTINENT TO THE DUAL PORT ARBITRATION LOGIC ARE SHOWN.
3. THE DASHED LINES DESIGNATE THE PASSAGE OF TIME.
4. THE VERTICAL LINES DIVIDE THE DIAGRAM INTO 3 DIFFERENT SYSTEM CONDITIONS.

DRIVE IS AVAILABLE TO BOTH PORTS WHICH SIMULTANEOUSLY ATTEMPT TO SEIZE THE DRIVE. THE DUAL PORT CLOCK ARBITRATES AND PORT'B' WINS. PORT'A' SETS UP THE LOGIC GIVING IT PRIORITY ONCE PORT'B' RELEASES THE DRIVE.

THE LOGIC INHIBITS PORT'B' FROM SEIZING THE DRIVE, GIVING PORT'A' PRIORITY. PORT'A' SEIZES THE DRIVE, BUT DOES NOT ISSUE A RELEASE COMMAND. THE 1 SECOND DESELECT TIMER TIMES OUT AND PORT'A' GETS DESELECTED.

DRIVE IS AVAILABLE TO BOTH PORTS. PORT'A' SEIZES THE DRIVE AND ISSUES THE UNLOAD HEADS COMMAND. THE DESELECT TIMER IS DISABLED AND THE DRIVE WILL REMAIN LOCKED ONTO PORT 'A'.

| REVISIONS | | | |
|---|---|---|---|
| CHK | CHANGE NO. | REV. | |

| | | |
|---|---|---|
| DRN J. Stang | 8-13-77 | FIRST USED ON RKØ6 |
| CHK'D D. Maynard | 8-29-77 | digital |
| ENGR R. W. | 29 APR 77 | TITLE (RKØ6) DUAL PORT LOGIC TIMING DIAGRAM |
| PROJ. ENGR R. Wall | 5 May 77 | |
| PROG | | |
| NEXT HIGHER ASSY. B-DD-M773Ø-Ø | | SIZE D · CODE TD · NUMBER M773Ø-Ø-3 · REV. B |
| SCALE | | |
| SHEET 1 OF 2 | | DIST. |

D TD M773Ø-Ø-3 B

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TIME STATES PORT'A'-H
TIME STATES PORT'B'-H
TIME STATES-H
SET DR SEL A-L
SET DR SEL B-L
ARBITRATION CLK-L
PORT A USING DRIVE-H
PORT B USING DRIVE-H
PORT REQUEST A-H
PORT REQUEST B-H
PORT REQ A AFTER B-H
RELEASE COMM A-L
1 SEC INH TIMER-H
INH PORT A 1 SEC-L
GTD INH PORT A 1 SEC-L
INH PORT B 1 SEC-L
GTD INH PORT B 1 SEC-L
PORT B DIDN'T ACK ATN-L
RELEASE'B'+TIME OUT-L (TO PORT A)
RELEASE A + TIME OUT-L (TO PORT B)
CLR PORT REQ'B'-L
E21-5
E21-9

1 SEC

1. DRIVE IS INITIALLY IN THE NEUTRAL STATE.
2. PORT A SEIZES THE DRIVE.
3. PORT B ATTEMPTS TO SEIZE THE DRIVE AND FINDS THE DRIVE UNAVAILABLE.
4. PORT A RELEASES THE DRIVE, WHICH ASSERTS PORT B'S ATTENTION.
5. PORT A ATTEMPTS TO SEIZE THE DRIVE AND FINDS THE DRIVE UNAVAILABLE.
6. 1 SECOND PASSES WITH PORT B FAILING TO SEIZE THE DRIVE. PORT A'S ATTENTION IS ASSERTED SIGNALING THAT PORT THAT THE DRIVE IS NOW AVAILABLE. BOTH PORT REQUESTS GET CLEARED.
7. PORT A SEIZES THE DRIVE.
8. PORT A RELEASES THE DRIVE.

← ARBITRATION CLK-L REPEATED FOR CONVENIENCE.

REVISIONS

| CHK | CHANGE NO. | REV. |
|---|---|---|

DUAL PORT LOGIC RELEASE AND TIME OUT TIMING

| TITLE | SIZE | CODE | NUMBER | REV. |
|---|---|---|---|---|
| (RK06) DUAL PORT LOGIC TIMING DIAGRAM | D | TD | M7730-0-3 | B |
| SCALE | SHEET 2 OF 2 | DIST. | | |

| LINE | ITEM | DOCUMENT NO. | PART NO. | DESCRIPTION | QTY | REFERENCE DESIGNATORS |
|---|---|---|---|---|---|---|
| 1 | 1 | | 5012638-00 | M7730 | 1 | |
| 2 | 2 | | 1000012-00 | ******** THIS ITEM IS NOT USED ********* | - | |
| 3 | 3 | | 1000084-00 | 150 MFD 15V 20% 150D S.TA (10-20 | 2 | C50,C53 |
| 4 | 4 | | 1001610-01 | .01 MFD 100V OR 50V Z5U DISC/800PF MIN | 49 | C1-C49 |
| 5 | 5 | | 1005306-00 | 6.8MFD 35V 10% 150D S.TA (10-00 | 5 | C51,C54-C57 |
| 6 | 6 | | 1105275-00 | ******** THIS ITEM IS NOT USED ********* | - | |
| 7 | 7 | | 1112689-00 | LED .8MCD@16MA VF=5V | 4 | DS1-DS4 |
| 8 | 8 | | 1210209-00 | SW,TOG 1P,01A SUBMINI | 1 | S1 |
| 9 | 9 | | 1300295-00 | 330 1/4W 5% CC (13-00 | 1 | R1 |
| 10 | 10 | | 1300365-00 | 1 K 1/4W 5% CC (13-00 | 3 | R4-R6 |
| 11 | 11 | | 1301401-00 | 750 1/4W 5% CC (13-00 | 1 | R2 |
| 12 | 12 | | 1301808-00 | 22 K 1/4W 5% CC (13-00 | 2 | R7,R8 |
| 13 | 13 | | 1300479-00 | 10 K 1/4W 5% CC (13-00 | 2 | R9,R10 |
| 14 | 14 | | 1301890-00 | 560 1/4W 5% CC (13-00 | 1 | R3 |
| 15 | 15 | | 1609428-00 | DELAY= 50NS,9TAPS DC150 | 1 | E19 |
| 16 | 16 | | 1905547-00 | DEC 7474 FF-D DUAL,EDGE TRIGGER,15MHZ | 8 | E15,E20,E21,E27,E36,E37,E43, |
| | | | | | CONT | E49 |
| 17 | 17 | | 1905575-00 | 7400 NAND GATE-QUAD 2IN | 5 | E8,E9,E32,E45,E46 |
| 18 | 18 | | 1905576-00 | 7410 NAND GATE-TRIPLE 3IN | 3 | E26,E41,E47 |
| 19 | 19 | | 1905577-00 | 7420 NAND GATE-DUAL 4INPUT | 1 | E50 |
| 20 | 20 | | 1909004-00 | DEC 7402 NOR GATE-QUAD 2IN | 3 | E24,E28,E42 |
| 21 | 21 | | 1909686-00 | 7404 INVERTER GATE-HEX 1IN | 9 | E6,E7,E13,E17,E29,E31,E35,E38, |
| | | | | | CONT | E48 |
| 22 | 22 | | 1909701-00 | 74154 1 OF 16,BINARY SELECT | 1 | E18 |
| 23 | 23 | | 1910091-00 | DEC 7437 NAND GATE-QUAD 2IN,BUFFER 14 | 1 | E14 |
| 24 | 24 | | 1910155-00 | DEC 7408 AND GATE,POS,QUAD 2IN 14 | 3 | E10,E33,E44 |
| 25 | 25 | | 1910436-00 | DEC 74123 ONE SHOT-DUAL,RETRIGGERABLE | 2 | E5,E16 |
| 26 | 26 | | 1910655-00 | 74157 MUX 1 OF 2 QUAD | 6 | E1,E2,E12,E23,E30,E34 |
| 27 | 27 | | 1911324-00 | 7414 NAND GATE-HEX 1IN SCHMITT TRIG | 1 | E3 |
| 28 | 28 | | 7413826-00 | HANDLE | 1 | |

| REVISION HISTORY | | | VARIATIONS FOR THIS ASSY. |
|---|---|---|---|
| CHK | ECO NO | REV | |
| BHF | 00002 | D | 00 |

FIRST USED ON: RK06

| | | |
|---|---|---|
| MADE BY: | D. MAYUSHI | DATE: 30-JUN-78 |
| CHECKED: | D. MAYUSHI | DATE: 30-JUN-79 |
| DSN.ENG.: | ROBERT H. WOLFF | DATE: 30-JUN-78 |
| PROD.: | BOB GOODWIN | DATE: 30-JUN-78 |
| RESP.ENG.: | ROBERT H. WOLFF | DATE: 30-JUN-78 |

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
PARTS LIST
RK06 DUAL PORT LOGIC

| SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|
| K | PL | M7730-0-DRP | D |

EDIT# 4

ASSY.NO.: D-UA-M7730-0-0

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| LINE | ITEM | DOCUMENT NO. | PART NO. | DESCRIPTION | QTY | REFERENCE DESIGNATORS |
|---|---|---|---|---|---|---|
| 29 | 29 | | 7413826-01 | HANDEL, MODULE | 1 | |
| 30 | 30 | | 9000024-01 | EYELET, ROLLED FLANGE, .121 OD X .196 LG | 8 | |
| 31 | 31 | | 9105740-55 | WIRE(WRAP)30AWG UL1423 (91-00 | A/R | |
| 32 | 32 | | 9009185-00 | JUMPER, WIRE, INSULATED, BLACK BAND | 2 | W1,W2 |
| 33 | 33 | | 1000042-00 | 1000.0 MMF 100V 5%200PPM DM15S (10-00 | 1 | C58 |
| 34 | 34 | B-DD-M7730-0-0 | | DRAWING DIRECTORY | REF | |
| 35 | 35 | D-UA-M7730-0-0 | | UNIT ASSEMBLY | REF | |
| 36 | 36 | D-CS-M7730-0-1 | | CIRCUIT SCHEMATIC | REF | |
| 37 | 37 | D-MD-5012638-0-0 | | DRILL AND ETCH DRAWING | REF | |
| 38 | 38 | I.C. SPARES, 16 PIN | | | 6 | E4,E11,E22,E25,E39,E40 |

| | | | | | |
|---|---|---|---|---|---|
| DIGITAL EQUIPMENT CORPORATION<br>MAYNARD, MASSACHUSETTS | TITLE: PARTS LIST<br>RK06 DUAL PORT LOGIC | SIZE: K | CODE: PL | DOCUMENT NUMBER: M7730-0-DBP | REV: D |

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# AUTOMATIC WIRE TESTER (AWT) REVISION STATUS

| DRAWING NUMBER | INIT REL | | | | | | | | | | | | | | | | | | | | REV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T1 | A | B | C | D | E | E | F | H | H | J | K | K | K | L | L | | | | | S |
| K-WL-7012474-1-DBW | * | A | B | C | D | E | E | F | H | H | J | K | K | K | L | L | | | | | |
| D-AD-7012474-0-0 | * | A | B | B | C | C | D | D | D | D | D | D | E | F | H | J | | | | | |
| D-CS-5411864-0-1 | C | C | C | C | C | C | C | C | C | D | D | D | D | D | D | E | | | | | |
| ~~D-IA-7011626-0-0~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~B~~ | ~~B~~ | ~~B~~ | | | | | | | | | |
| ~~A-DC-7411881-0-0~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | ~~*~~ | | | | | | | | | |
| K-PL-7012474-0-DBP | | | | | | | | | | | | | | | | J | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

| REVISIONS | | |
|---|---|---|
| CHK | CHANGE NO. | REV. |
| [illegible] | 7012474-00001 | A |
| DC | 7012474-00002 | B |
| RW | 7012474-00003 | C |
| MC | 7012474-00005 | D |
| R.W. | 7012474-00006 | E |
| PS | 7012474-00007 | F |
| [illegible] | 7012474-00008 | H |
| [illegible] | 7012474-00009 | J |
| WE | 5411864-00002 | K |
| MC | 7012474-00010 | L |
| MC | 7012474-00012 | M |
| [illegible] | 7012474-00013 | N |
| [illegible] | 7012474-ML014 | P |
| D.A. | 7012474-ML015 | R |
| MW | 7012474-ML016 | S |

| | | |
|---|---|---|
| DRN W. Maia | DATE 20 APR 76 | digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS |
| CHK'D W. Maia | DATE 20 APR 76 | |
| ENG. [signature] | DATE 4/20/76 | TITLE RKØ6 (DUAL PORT) AWT REVISION STATUS |
| PROJ. ENG. [signature] | DATE 4/21/76 | |
| PROD. [signature] | DATE 4/21/76 | |
| FIRST USED ON RKØ6 | | SIZE A · CODE WT · NUMBER 7012474-1 · REV. S |
| SCALE ++ | | |
| SHEET 1 OF 1 | | DIST. |

DRA 123

DEC 16-(3251)-1097-N) 73

ML2

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NOTES:

1. THE ROUTING OF SOME WIRES ARE CRITICAL. ANY ROUTING CHANGE MUST HAVE DISK ENGINEERING APPROVAL.

| REVISIONS | CHANGE NO. | CHK | REV. |
|---|---|---|---|
| | 7012474-00001 | RV | A |
| | 7012474-00002 | MC | B |
| | 7012474-00003 | R.W. | C |
| | 7012474-00005 | MC. | D |
| | 7012474-00006 | R.W. | E |
| | 7012474-00008 | [illegible] | F |
| | 7012474-00009 | [illegible] | H |
| | 7012474-00010 | MC | J |
| | 7012474-00012 | MC | K |
| | 7012474-ML015 | D.D. | L |

| FIRST USED ON OPTION MODEL | QTY. | DESCRIPTION | PART NO. | ITEM NO. |
|---|---|---|---|---|
| RKΦ6 | | PARTS LIST | | |

| | | |
|---|---|---|
| DRN. W. Maior | DATE 20 APR 76 | digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS |
| CHK'D. W. Maior | DATE 20 APR 76 | TITLE WIRE LIST (DUAL PORT) |
| ENG. [signature] | DATE 4/20/76 | |
| PROJ. ENG. [signature] | DATE 4/21/76 | |
| PROD. [signature] | DATE 4/20/76 | |
| NEXT HIGHER ASSEMBLY C-AD-7012474-0-0 | | SIZE K · CODE WL · NUMBER 7012474-1-DBW · REV. L |
| SCALE — | | DIST. |
| SHEET 1 OF 1 | | |

DEC FORM NO. DRB 109

BLANK